

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 14, 2004, 10:28:18 ; Search time 26.7788 Seconds
(without alignments)
165.965 Million cell updates/sec

Title: US-09-843-221A-169
Perfect score: 28
Sequence: 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size : 0

Total number of hits satisfying chosen parameters: 75810

Minimum DB seq length: 28

Maximum DB seq length: 40

Post-processing: Listing first 1000 summaries

Database : A_Geneseq_19Jun03:*

- 1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
- 2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
- 3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
- 4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
- 5: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
- 6: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
- 7: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
- 8: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
- 9: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
- 10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
- 11: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
- 12: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
- 13: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
- 14: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
- 15: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
- 16: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
- 17: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*
- 18: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
- 19: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:*
- 20: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
- 21: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
- 22: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
- 23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
- 24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result	%		Query				
No.	Score	Match	Length	DB	ID		Description
1	28	100.0	28	13	AAR21481		Asn10, Leu11, [Lys
2	28	100.0	28	13	AAR21491		Desamino [Asn 10,
3	28	100.0	28	23	AAU73081		Parathyroid hormon
4	28	100.0	29	23	AAU73180		Parathyroid hormon
5	26	92.9	28	12	AAR14728		Human parathyroid
6	26	92.9	30	12	AAR14727		Human parathyroid
7	26	92.9	32	12	AAR14726		Human parathyroid
8	26	92.9	36	12	AAR14729		Human parathyroid
9	24	85.7	28	13	AAR27976		(Leu11) hHCF (7-34
10	24	85.7	28	13	AAR27069		[Leu11]hHCF[7-34]
11	24	85.7	30	12	AAR14940		Parathyroid hormon
12	24	85.7	32	12	AAR14931		Parathyroid hormon
13	24	85.7	32	12	AAR14932		Parathyroid hormon
14	23	82.1	28	13	AAR27974		(Leu23) hHCF (7-34
15	23	82.1	28	13	AAR21479		[Lys11/13 (epsilon
16	23	82.1	28	13	AAR21489		Desamino Lys13 (ep
17	23	82.1	28	22	AAB91126		Parathyroid hormon
18	23	82.1	28	23	AAU73080		Parathyroid hormon
19	23	82.1	29	12	AAR14936		Parathyroid hormon
20	23	82.1	29	23	AAE23742		Human parathyroid
21	23	82.1	30	12	AAR14933		Parathyroid hormon
22	23	82.1	30	12	AAR14934		Parathyroid hormon
23	23	82.1	30	12	AAR14935		Parathyroid hormon
24	23	82.1	30	12	AAR14937		Parathyroid hormon
25	23	82.1	30	12	AAR14938		Parathyroid hormon
26	23	82.1	30	12	AAR14939		Parathyroid hormon
27	23	82.1	30	12	AAR14943		Parathyroid hormon
28	23	82.1	30	12	AAR14944		Parathyroid hormon
29	23	82.1	30	23	AAE23753		Human parathyroid
30	23	82.1	32	23	AAE23743		Human parathyroid
31	23	82.1	33	22	AAB91122		Parathyroid hormon
32	23	82.1	34	13	AAR27012		Antihuman PTHrP MA
33	23	82.1	34	13	AAR27063		N-terminus of huma
34	23	82.1	34	18	AAW18683		Human parathyroid
35	23	82.1	34	18	AAW18685		hPTHrP analogue [C
36	23	82.1	34	19	AAW61661		Human parathyroid
37	23	82.1	34	19	AAW65978		Human parathyroid
38	23	82.1	34	19	AAW57605		Peptide SEQ ID NO:
39	23	82.1	34	19	AAW42617		Parathyroid hormon
40	23	82.1	34	20	AAW50594		Resin bound cyclic
41	23	82.1	34	20	AAW02581		Parathyroid hormon
42	23	82.1	34	20	AAW89624		Human parathyroid
43	23	82.1	34	20	AAW81874		Human PTHrp N-term
44	23	82.1	34	21	ABJ10780		Human parathyroid
45	23	82.1	34	21	ABJ10782		Human parathyroid
46	23	82.1	34	21	ABJ10783		Human parathyroid
47	23	82.1	34	21	AAW82608		Human PTHrP monocl
48	23	82.1	34	21	AAW77531		Human PTHrP fragme
49	23	82.1	34	22	AAG67119		Amino acid sequenc
50	23	82.1	34	22	AAG63411		Amino acid sequenc

51	23	82.1	34	22	AAG64793	Human parathyroid
52	23	82.1	34	22	AAB91119	Parathyroid hormon
53	23	82.1	34	22	AAB91121	Parathyroid hormon
54	23	82.1	34	22	AAB76897	Human parathyroid
55	23	82.1	34	22	AAB76916	Human parathyroid
56	23	82.1	34	22	AAB76935	Human parathyroid
57	23	82.1	34	23	ABB78377	Human parathyroid
58	23	82.1	34	23	ABB95195	Human joint diseas
59	23	82.1	34	23	AAU73075	Parathyroid hormon
60	23	82.1	34	24	ABJ36666	Angiogenesis inhib
61	23	82.1	35	22	AAB91123	Parathyroid hormon
62	23	82.1	35	23	AAE23748	Human parathyroid
63	23	82.1	35	23	AAU73078	Parathyroid hormon
64	23	82.1	36	19	AAW48393	Human parathyroid
65	23	82.1	36	23	AAU73076	Parathyroid hormon
66	23	82.1	37	22	AAB91125	Parathyroid hormon
67	23	82.1	37	23	ABB82205	Bovine parathyroid
68	23	82.1	37	23	ABB82206	Human parathyroid
69	23	82.1	39	21	AAV82609	Human PTHrP monocl
70	23	82.1	40	20	AAV02588	Parathyroid hormon
71	23	82.1	40	22	AAB91086	Parathyroid hormon
72	23	82.1	40	23	AAE23740	Human parathyroid
73	23	82.1	40	23	AAE18383	Human PTHrP peptid
74	22	78.6	28	13	AAR21478	[Leu11, D-Trp12, L
75	22	78.6	28	13	AAR21480	Asn10, Leu11, D-Tr
76	22	78.6	28	13	AAR21482	D-Trp-[Lys11/13 (e
77	22	78.6	28	13	AAR21485	Leu11, D-Trp12 [Ly
78	22	78.6	28	13	AAR21488	Desamino[Leu11, D-
79	22	78.6	28	13	AAR21490	Desamino [Asn 10,
80	22	78.6	28	13	AAR21492	Desamino [D-Trp, L
81	22	78.6	28	13	AAR21495	Desamino [Leu11, D
82	22	78.6	28	13	AAR27072	[Leu11, D-Trp12]hH
83	22	78.6	28	23	AAU73083	Parathyroid hormon
84	22	78.6	28	23	AAU73084	Parathyroid hormon
85	22	78.6	28	23	AAU73087	Parathyroid hormon
86	22	78.6	34	22	AAB91124	Parathyroid hormon
87	22	78.6	34	23	AAU73079	Parathyroid hormon
88	21	75.0	32	23	AAE23741	Human parathyroid
89	19	67.9	30	23	AAU73088	Parathyroid hormon
90	19	67.9	31	23	AAU73090	Parathyroid hormon
91	19	67.9	34	19	AAW48398	Human PTH/PTHrP hy
92	18	64.3	30	23	AAU73091	Parathyroid hormon
93	18	64.3	34	10	AAP91452	Human humoral hype
94	17	60.7	28	17	AAW15820	[Trp(10)]-hPTHrP(7
95	17	60.7	28	17	AAW15832	N-alpha-3-(2-napht
96	17	60.7	28	23	AAU73082	Parathyroid hormon
97	17	60.7	29	17	AAW15819	[Trp(6),Trp(10)]-h
98	17	60.7	29	17	AAW15833	N-alpha-acetyl-[Ph
99	17	60.7	30	17	AAW15803	N-alpha-succinyl-[
100	17	60.7	30	17	AAW15835	N-alpha-succinyl-[
101	17	60.7	30	17	AAW15836	N-alpha-glutaryl-[
102	17	60.7	30	17	AAW15837	N-alpha-succinyl-[
103	17	60.7	30	17	AAW15838	N-alpha-succinyl-[
104	17	60.7	30	17	AAW15839	N-alpha-succinyl-[
105	17	60.7	31	17	AAW15826	N-alpha-acylated [
106	17	60.7	31	17	AAW15829	N-alpha-(2-naphthy
107	17	60.7	31	21	AAV96976	PTH-rP functional

108	17	60.7	31	21	AAAY96977	PTH-rP functional
109	17	60.7	32	17	AAW15801	N-alpha-(naphth-2-
110	17	60.7	32	17	AAW15810	[Trp(10)]-hPTHrP(3
111	17	60.7	32	17	AAW15821	[Trp(3),Trp(10)]-h
112	17	60.7	32	17	AAW15823	[Trp(6),Trp(10)]-h
113	17	60.7	32	17	AAW15827	N-alpha-acylated [
114	17	60.7	32	17	AAW15830	N-alpha-substitute
115	17	60.7	33	9	AAP80302	Sequence encoded b
116	17	60.7	33	17	AAW15809	[Trp(10)]-hPTHrP(2
117	17	60.7	33	17	AAW15817	[Trp(2),Trp(10)]-h
118	17	60.7	33	17	AAW15831	N-alpha-benzyloxy
119	17	60.7	34	17	AAW15804	[Trp(4,10)]-hPTHrP
120	17	60.7	34	17	AAW15805	[Trp(10),Leu(11,13
121	17	60.7	34	17	AAW15806	[Trp(10),Leu(11)]-
122	17	60.7	34	17	AAW15807	[Trp(3,10)]-hPTHrP
123	17	60.7	34	17	AAW15808	[Trp(2,10)]-hPTHrP
124	17	60.7	34	17	AAW15811	[Trp(2)]-hPTHrP(1-
125	17	60.7	34	17	AAW15816	[Phe(2),Trp(10)]-h
126	17	60.7	34	17	AAW15818	[Trp(6),Trp(10)]-h
127	17	60.7	34	17	AAW15822	[Trp(10)]-hPTHrP(1
128	17	60.7	34	17	AAW15824	[Phe(6),Trp(10)]-h
129	17	60.7	34	17	AAW15825	[Phe(2),Phe(6),Trp
130	17	60.7	34	18	AAW18691	Human PTHrP analog
131	16	57.1	34	21	ABJ10785	Human parathyroid
132	15	53.6	31	21	AAAY96978	PTH-rP functional
133	15	53.6	34	18	AAW18692	Human PTHrP analog
134	14	50.0	29	17	AAW15802	N-alpha-(naphth-2-
135	14	50.0	30	12	AAR14942	Parathyroid hormone
136	14	50.0	30	12	AAR14945	Parathyroid hormone
137	13	46.4	30	12	AAR14941	Parathyroid hormone
138	13	46.4	32	12	AAR14269	Parathyroid hormone
139	13	46.4	34	15	AAR45510	Parathyroid hormone
140	13	46.4	34	16	AAR69040	PTH analogue with
141	13	46.4	34	18	AAW13337	Truncated parathyr
142	13	46.4	34	18	AAW12633	Parathyroid hormone
143	13	46.4	34	19	AAW61712	Parathyroid hormone
144	13	46.4	34	19	AAW66038	Parathyroid hormone
145	13	46.4	34	19	AAW42584	Parathyroid hormone
146	13	46.4	34	19	AAW48397	Human PTH/PTHrP hy
147	13	46.4	34	20	AAW74384	Modified parathyro
148	13	46.4	34	20	AAW81930	Synthetic PTH and
149	12	42.9	28	13	AAR27977	(Leu11,23) hHCF (7
150	12	42.9	28	13	AAR27978	(Leu11,23 Tyr34) h
151	12	42.9	28	13	AAR27070	[Leu11 L23]hHCF[7-
152	12	42.9	28	20	AAAY50590	Resin bound cyclic
153	12	42.9	28	20	AAAY04249	Human parathyroid
154	12	42.9	34	15	AAR58195	[S14,I15,Q16,D17,L
155	12	42.9	34	15	AAR58187	[Phe23,His25,His26
156	12	42.9	34	15	AAR58189	[F23,H25,H26,L27,I
157	12	42.9	34	20	AAAY50587	Resin bound cyclic
158	12	42.9	34	20	AAAY04235	Human parathyroid
159	11	39.3	28	13	AAR27067	[Leu23]hHCF[7-34]
160	11	39.3	28	21	ABJ10792	Human parathyroid
161	11	39.3	30	23	AAU73089	Parathyroid hormone
162	11	39.3	30	23	AAU73162	Parathyroid hormone
163	11	39.3	34	15	AAR45473	Parathyroid hormone
164	11	39.3	34	16	AAR69000	PTH analogue with

165	11	39.3	34	18	AAW13291	Truncated parathyr
166	11	39.3	34	18	AAW12170	Parathyroid hormon
167	11	39.3	34	19	AAW61669	Parathyroid hormon
168	11	39.3	34	19	AAW65988	Parathyroid hormon
169	11	39.3	34	19	AAW42551	Parathyroid hormon
170	11	39.3	34	20	AAW74348	Modified parathyro
171	11	39.3	34	20	AAW81884	Synthetic PTH and
172	11	39.3	34	21	ABJ10781	Human parathyroid
173	11	39.3	34	21	ABJ10784	Human parathyroid
174	11	39.3	34	21	ABJ10786	Human parathyroid
175	11	39.3	34	21	ABJ10787	Human parathyroid
176	11	39.3	34	23	AAU73126	Parathyroid hormon
177	11	39.3	36	19	AAW48399	Human PTHrP peptid
178	11	39.3	36	19	AAW48400	Human PTHrP peptid
179	11	39.3	36	23	AAU73077	Parathyroid hormon
180	10	35.7	28	15	AAR45523	Parathyroid hormon
181	10	35.7	28	16	AAR69057	Truncated PTH anal
182	10	35.7	28	18	AAW13354	Truncated parathyr
183	10	35.7	28	18	AAW12646	Parathyroid hormon
184	10	35.7	28	19	AAW61727	Parathyroid hormon
185	10	35.7	28	19	AAW66055	Parathyroid hormon
186	10	35.7	28	19	AAW42597	Parathyroid hormon
187	10	35.7	28	20	AAW74398	Modified parathyro
188	10	35.7	28	20	AAW81947	Synthetic PTH and
189	10	35.7	28	23	AAU73115	Parathyroid hormon
190	10	35.7	28	23	AAU73116	Parathyroid hormon
191	10	35.7	28	23	AAU73117	Parathyroid hormon
192	10	35.7	28	23	AAU73118	Parathyroid hormon
193	10	35.7	28	23	AAU73119	Parathyroid hormon
194	10	35.7	30	23	AAU73146	Parathyroid hormon
195	10	35.7	30	23	AAU73147	Parathyroid hormon
196	10	35.7	30	23	AAU73148	Parathyroid hormon
197	10	35.7	30	23	AAU73149	Parathyroid hormon
198	10	35.7	30	23	AAU73150	Parathyroid hormon
199	10	35.7	30	23	AAU73156	Parathyroid hormon
200	10	35.7	30	23	AAU73157	Parathyroid hormon
201	10	35.7	30	23	AAU73159	Parathyroid hormon
202	10	35.7	30	23	AAU73163	Parathyroid hormon
203	10	35.7	30	23	AAU73165	Parathyroid hormon
204	10	35.7	30	23	AAU73167	Parathyroid hormon
205	10	35.7	30	23	AAU73168	Parathyroid hormon
206	10	35.7	30	23	AAU73169	Parathyroid hormon
207	10	35.7	32	15	AAR45487	Parathyroid hormon
208	10	35.7	32	15	AAR45522	Parathyroid hormon
209	10	35.7	32	16	AAR69056	Truncated PTH anal
210	10	35.7	32	16	AAR69032	PTH analogue with
211	10	35.7	32	18	AAW13353	Truncated parathyr
212	10	35.7	32	18	AAW13329	Truncated parathyr
213	10	35.7	32	18	AAW12182	Parathyroid hormon
214	10	35.7	32	18	AAW12645	Parathyroid hormon
215	10	35.7	32	19	AAW61705	Parathyroid hormon
216	10	35.7	32	19	AAW61726	Parathyroid hormon
217	10	35.7	32	19	AAW66054	Parathyroid hormon
218	10	35.7	32	19	AAW66030	Parathyroid hormon
219	10	35.7	32	19	AAW42596	Parathyroid hormon
220	10	35.7	32	19	AAW42577	Parathyroid hormon
221	10	35.7	32	20	AAW74336	Modified parathyro

222	10	35.7	32	20	AAW74397	Modified parathyro
223	10	35.7	32	20	AAW81946	Synthetic PTH and
224	10	35.7	32	20	AAW81922	Synthetic PTH and
225	10	35.7	33	15	AAR45486	Parathyroid hormon
226	10	35.7	33	16	AAR69031	PTH analogue with
227	10	35.7	33	16	AAR69025	PTH analogue with
228	10	35.7	33	16	AAR69026	PTH analogue with
229	10	35.7	33	18	AAW13336	Truncated parathyr
230	10	35.7	33	18	AAW13322	Truncated parathyr
231	10	35.7	33	18	AAW13323	Truncated parathyr
232	10	35.7	33	18	AAW13328	Truncated parathyr
233	10	35.7	33	18	AAW12181	Parathyroid hormon
234	10	35.7	33	18	AAW12194	Parathyroid hormon
235	10	35.7	33	18	AAW12195	Parathyroid hormon
236	10	35.7	33	19	AAW61704	Parathyroid hormon
237	10	35.7	33	19	AAW61711	Parathyroid hormon
238	10	35.7	33	19	AAW66029	Parathyroid hormon
239	10	35.7	33	19	AAW66037	Parathyroid hormon
240	10	35.7	33	19	AAW66023	Parathyroid hormon
241	10	35.7	33	19	AAW42576	Parathyroid hormon
242	10	35.7	33	20	AAW74337	Modified parathyro
243	10	35.7	33	20	AAW74359	Modified parathyro
244	10	35.7	33	20	AAW81929	Synthetic PTH and
245	10	35.7	33	20	AAW81915	Synthetic PTH and
246	10	35.7	33	20	AAW81916	Synthetic PTH and
247	10	35.7	33	20	AAW81921	Synthetic PTH and
248	10	35.7	33	23	AAU73158	Parathyroid hormon
249	10	35.7	34	15	AAR45464	Parathyroid hormon
250	10	35.7	34	15	AAR45465	Parathyroid hormon
251	10	35.7	34	15	AAR45466	Parathyroid hormon
252	10	35.7	34	15	AAR45467	Parathyroid hormon
253	10	35.7	34	15	AAR45468	Parathyroid hormon
254	10	35.7	34	15	AAR45470	Parathyroid hormon
255	10	35.7	34	15	AAR45474	Parathyroid hormon
256	10	35.7	34	15	AAR45479	Parathyroid hormon
257	10	35.7	34	15	AAR45480	Parathyroid hormon
258	10	35.7	34	15	AAR45481	Parathyroid hormon
259	10	35.7	34	15	AAR45490	Parathyroid hormon
260	10	35.7	34	15	AAR45493	Parathyroid hormon
261	10	35.7	34	15	AAR45494	Parathyroid hormon
262	10	35.7	34	15	AAR45502	Parathyroid hormon
263	10	35.7	34	15	AAR45503	Parathyroid hormon
264	10	35.7	34	15	AAR45511	Parathyroid hormon
265	10	35.7	34	15	AAR45512	Parathyroid hormon
266	10	35.7	34	15	AAR45513	Parathyroid hormon
267	10	35.7	34	15	AAR45514	Parathyroid hormon
268	10	35.7	34	15	AAR45527	Parathyroid hormon
269	10	35.7	34	15	AAR45532	Parathyroid hormon
270	10	35.7	34	15	AAR45533	Parathyroid hormon
271	10	35.7	34	15	AAR45534	Parathyroid hormon
272	10	35.7	34	16	AAR69043	PTH analogue with
273	10	35.7	34	16	AAR69044	PTH analogue with
274	10	35.7	34	16	AAR69045	PTH analogue with
275	10	35.7	34	16	AAR69046	PTH analogue with
276	10	35.7	34	16	AAR69047	PTH analogue with
277	10	35.7	34	16	AAR68995	hPTHrp(1-34) analo
278	10	35.7	34	16	AAR69001	PTH analogue with

279	10	35.7	34	16	AAR69006	PTH analogue with
280	10	35.7	34	16	AAR69007	PTH analogue with
281	10	35.7	34	16	AAR69008	PTH analogue with
282	10	35.7	34	16	AAR69015	PTH analogue with
283	10	35.7	34	16	AAR69019	PTH analogue with
284	10	35.7	34	16	AAR69039	PTH analogue with
285	10	35.7	34	16	AAR69041	PTH analogue with
286	10	35.7	34	16	AAR69042	PTH analogue with
287	10	35.7	34	16	AAR69027	PTH analogue with
288	10	35.7	34	16	AAR68991	PTH analogue with
289	10	35.7	34	16	AAR68992	PTH analogue with
290	10	35.7	34	16	AAR68993	PTH analogue with
291	10	35.7	34	16	AAR69029	PTH analogue with
292	10	35.7	34	16	AAR69030	PTH analogue with
293	10	35.7	34	16	AAR68994	PTH analogue with
294	10	35.7	34	16	AAR68997	PTH analogue with
295	10	35.7	34	16	AAR69023	PTH analogue with
296	10	35.7	34	18	AAW13344	Truncated parathyr
297	10	35.7	34	18	AAW13342	Truncated parathyr
298	10	35.7	34	18	AAW13343	Truncated parathyr
299	10	35.7	34	18	AAW13324	Truncated parathyr
300	10	35.7	34	18	AAW13338	Truncated parathyr
301	10	35.7	34	18	AAW13339	Truncated parathyr
302	10	35.7	34	18	AAW13340	Truncated parathyr
303	10	35.7	34	18	AAW13341	Truncated parathyr
304	10	35.7	34	18	AAW13320	Truncated parathyr
305	10	35.7	34	18	AAW13326	Truncated parathyr
306	10	35.7	34	18	AAW13327	Truncated parathyr
307	10	35.7	34	18	AAW13312	Truncated parathyr
308	10	35.7	34	18	AAW13316	Truncated parathyr
309	10	35.7	34	18	AAW13284	Truncated parathyr
310	10	35.7	34	18	AAW13285	Truncated parathyr
311	10	35.7	34	18	AAW13286	Truncated parathyr
312	10	35.7	34	18	AAW13288	Truncated parathyr
313	10	35.7	34	18	AAW13292	Truncated parathyr
314	10	35.7	34	18	AAW13297	Truncated parathyr
315	10	35.7	34	18	AAW13298	Truncated parathyr
316	10	35.7	34	18	AAW13299	Truncated parathyr
317	10	35.7	34	18	AAW13282	Truncated parathyr
318	10	35.7	34	18	AAW13283	Truncated parathyr
319	10	35.7	34	18	AAW12161	Parathyroid hormon
320	10	35.7	34	18	AAW12162	Parathyroid hormon
321	10	35.7	34	18	AAW12163	Parathyroid hormon
322	10	35.7	34	18	AAW12164	Parathyroid hormon
323	10	35.7	34	18	AAW12165	Parathyroid hormon
324	10	35.7	34	18	AAW12167	Parathyroid hormon
325	10	35.7	34	18	AAW12171	Parathyroid hormon
326	10	35.7	34	18	AAW12176	Parathyroid hormon
327	10	35.7	34	18	AAW12177	Parathyroid hormon
328	10	35.7	34	18	AAW12178	Parathyroid hormon
329	10	35.7	34	18	AAW12185	Parathyroid hormon
330	10	35.7	34	18	AAW12188	Parathyroid hormon
331	10	35.7	34	18	AAW12197	Parathyroid hormon
332	10	35.7	34	18	AAW12198	Parathyroid hormon
333	10	35.7	34	18	AAW12634	Parathyroid hormon
334	10	35.7	34	18	AAW12635	Parathyroid hormon
335	10	35.7	34	18	AAW12636	Parathyroid hormon

336	10	35.7	34	18	AAW12637	Parathyroid hormon
337	10	35.7	34	18	AAW12650	Parathyroid hormon
338	10	35.7	34	18	AAW12655	Parathyroid hormon
339	10	35.7	34	18	AAW12656	Parathyroid hormon
340	10	35.7	34	18	AAW12657	Parathyroid hormon
341	10	35.7	34	18	AAW12658	Parathyroid hormon
342	10	35.7	34	18	AAW18684	[Cha7,8,Glu22,25,2
343	10	35.7	34	18	AAW18687	[Cha22,Leu23,28,31
344	10	35.7	34	18	AAW18688	[Cha22,23,Glu25,29
345	10	35.7	34	18	AAW18689	[Cha22,23,24,27,28
346	10	35.7	34	18	AAW18690	[Glu22,25,29,Leu23
347	10	35.7	34	18	AAW18693	hPTHrP analogue [A
348	10	35.7	34	18	AAW18694	hPTHrP analogue [G
349	10	35.7	34	18	AAW18695	hPTHrP analogue [G
350	10	35.7	34	18	AAW18696	hPTHrP analogue [G
351	10	35.7	34	18	AAW18697	hPTHrP analogue [G
352	10	35.7	34	18	AAW18698	[Cha7,11,Glu22,25,
353	10	35.7	34	18	AAW18699	[Glu22,25,29,Leu23
354	10	35.7	34	18	AAW18700	[Cha7,11,Glu22,25,
355	10	35.7	34	18	AAW18701	[Cha7,11,Glu22,25,
356	10	35.7	34	18	AAW18702	[Glu22,25,29,Leu23
357	10	35.7	34	19	AAW61691	Parathyroid hormon
358	10	35.7	34	19	AAW61695	Parathyroid hormon
359	10	35.7	34	19	AAW61700	Parathyroid hormon
360	10	35.7	34	19	AAW61702	Parathyroid hormon
361	10	35.7	34	19	AAW61703	Parathyroid hormon
362	10	35.7	34	19	AAW61674	Parathyroid hormon
363	10	35.7	34	19	AAW61675	Parathyroid hormon
364	10	35.7	34	19	AAW61676	Parathyroid hormon
365	10	35.7	34	19	AAW61713	Parathyroid hormon
366	10	35.7	34	19	AAW61714	Parathyroid hormon
367	10	35.7	34	19	AAW61715	Parathyroid hormon
368	10	35.7	34	19	AAW61716	Parathyroid hormon
369	10	35.7	34	19	AAW61717	Parathyroid hormon
370	10	35.7	34	19	AAW61718	Parathyroid hormon
371	10	35.7	34	19	AAW61662	Parathyroid hormon
372	10	35.7	34	19	AAW61663	Parathyroid hormon
373	10	35.7	34	19	AAW61664	Parathyroid hormon
374	10	35.7	34	19	AAW61666	Parathyroid hormon
375	10	35.7	34	19	AAW61670	Parathyroid hormon
376	10	35.7	34	19	AAW65979	Parathyroid hormon
377	10	35.7	34	19	AAW66039	Parathyroid hormon
378	10	35.7	34	19	AAW66040	Parathyroid hormon
379	10	35.7	34	19	AAW66041	Parathyroid hormon
380	10	35.7	34	19	AAW66042	Parathyroid hormon
381	10	35.7	34	19	AAW66043	Parathyroid hormon
382	10	35.7	34	19	AAW66045	Parathyroid hormon
383	10	35.7	34	19	AAW66013	Parathyroid hormon
384	10	35.7	34	19	AAW66014	Parathyroid hormon
385	10	35.7	34	19	AAW66017	Parathyroid hormon
386	10	35.7	34	19	AAW66021	Parathyroid hormon
387	10	35.7	34	19	AAW66025	Parathyroid hormon
388	10	35.7	34	19	AAW66027	Parathyroid hormon
389	10	35.7	34	19	AAW66028	Parathyroid hormon
390	10	35.7	34	19	AAW65996	Parathyroid hormon
391	10	35.7	34	19	AAW65980	Parathyroid hormon
392	10	35.7	34	19	AAW65981	Parathyroid hormon

393	10	35.7	34	19	AAW65982	Parathyroid hormon
394	10	35.7	34	19	AAW65983	Parathyroid hormon
395	10	35.7	34	19	AAW65985	Parathyroid hormon
396	10	35.7	34	19	AAW65989	Parathyroid hormon
397	10	35.7	34	19	AAW65995	Parathyroid hormon
398	10	35.7	34	19	AAW65994	Parathyroid hormon
399	10	35.7	34	19	AAW42608	Parathyroid hormon
400	10	35.7	34	19	AAW42620	Parathyroid hormon
401	10	35.7	34	19	AAW42621	Parathyroid hormon
402	10	35.7	34	19	AAW42601	Parathyroid hormon
403	10	35.7	34	19	AAW42603	Parathyroid hormon
404	10	35.7	34	19	AAW42607	Parathyroid hormon
405	10	35.7	34	19	AAW42585	Parathyroid hormon
406	10	35.7	34	19	AAW42586	Parathyroid hormon
407	10	35.7	34	19	AAW42587	Parathyroid hormon
408	10	35.7	34	19	AAW42588	Parathyroid hormon
409	10	35.7	34	19	AAW42558	Parathyroid hormon
410	10	35.7	34	19	AAW42559	Parathyroid hormon
411	10	35.7	34	19	AAW42562	Parathyroid hormon
412	10	35.7	34	19	AAW42565	Parathyroid hormon
413	10	35.7	34	19	AAW42574	Parathyroid hormon
414	10	35.7	34	19	AAW42544	Parathyroid hormon
415	10	35.7	34	19	AAW42545	Parathyroid hormon
416	10	35.7	34	19	AAW42546	Parathyroid hormon
417	10	35.7	34	19	AAW42549	Parathyroid hormon
418	10	35.7	34	19	AAW42552	Parathyroid hormon
419	10	35.7	34	19	AAW42555	Parathyroid hormon
420	10	35.7	34	19	AAW48396	Human PTH/PTHrP hy
421	10	35.7	34	20	AAAY02584	Parathyroid hormon
422	10	35.7	34	20	AAAY02582	Parathyroid hormon
423	10	35.7	34	20	AAAY05296	PTHrp analogue fra
424	10	35.7	34	20	AAAY05297	PTHrp analogue fra
425	10	35.7	34	20	AAAY05289	PTHrp analogue fra
426	10	35.7	34	20	AAAY05290	PTHrp analogue fra
427	10	35.7	34	20	AAAY05291	PTHrp analogue fra
428	10	35.7	34	20	AAAY05292	PTHrp analogue fra
429	10	35.7	34	20	AAAY05293	PTHrp analogue fra
430	10	35.7	34	20	AAW74345	Modified parathyro
431	10	35.7	34	20	AAW74349	Modified parathyro
432	10	35.7	34	20	AAW74354	Modified parathyro
433	10	35.7	34	20	AAW74355	Modified parathyro
434	10	35.7	34	20	AAW74356	Modified parathyro
435	10	35.7	34	20	AAW74338	Modified parathyro
436	10	35.7	34	20	AAW74339	Modified parathyro
437	10	35.7	34	20	AAW74340	Modified parathyro
438	10	35.7	34	20	AAW74341	Modified parathyro
439	10	35.7	34	20	AAW74342	Modified parathyro
440	10	35.7	34	20	AAW74343	Modified parathyro
441	10	35.7	34	20	AAW74374	Modified parathyro
442	10	35.7	34	20	AAW74376	Modified parathyro
443	10	35.7	34	20	AAW74377	Modified parathyro
444	10	35.7	34	20	AAW74385	Modified parathyro
445	10	35.7	34	20	AAW74386	Modified parathyro
446	10	35.7	34	20	AAW74387	Modified parathyro
447	10	35.7	34	20	AAW74388	Modified parathyro
448	10	35.7	34	20	AAW74362	Modified parathyro
449	10	35.7	34	20	AAW74366	Modified parathyro

450	10	35.7	34	20	AAW81931	Synthetic PTH and
451	10	35.7	34	20	AAW81932	Synthetic PTH and
452	10	35.7	34	20	AAW81933	Synthetic PTH and
453	10	35.7	34	20	AAW81934	Synthetic PTH and
454	10	35.7	34	20	AAW81935	Synthetic PTH and
455	10	35.7	34	20	AAW81936	Synthetic PTH and
456	10	35.7	34	20	AAW81937	Synthetic PTH and
457	10	35.7	34	20	AAW81909	Synthetic PTH and
458	10	35.7	34	20	AAW81913	Synthetic PTH and
459	10	35.7	34	20	AAW81917	Synthetic PTH and
460	10	35.7	34	20	AAW81919	Synthetic PTH and
461	10	35.7	34	20	AAW81920	Synthetic PTH and
462	10	35.7	34	20	AAW81892	Synthetic PTH and
463	10	35.7	34	20	AAW81905	Synthetic PTH and
464	10	35.7	34	20	AAW81876	Synthetic PTH and
465	10	35.7	34	20	AAW81877	Synthetic PTH and
466	10	35.7	34	20	AAW81878	Synthetic PTH and
467	10	35.7	34	20	AAW81879	Synthetic PTH and
468	10	35.7	34	20	AAW81881	Synthetic PTH and
469	10	35.7	34	20	AAW81885	Synthetic PTH and
470	10	35.7	34	20	AAW81890	Synthetic PTH and
471	10	35.7	34	20	AAW81891	Synthetic PTH and
472	10	35.7	34	20	AAW81875	Synthetic PTH and
473	10	35.7	34	21	ABJ10788	Human parathyroid
474	10	35.7	34	21	ABJ10789	Human parathyroid
475	10	35.7	34	21	ABJ10790	Human parathyroid
476	10	35.7	34	21	ABJ10791	Human parathyroid
477	10	35.7	34	23	ABB78379	Parathyroid hormon
478	10	35.7	34	23	ABB78380	Parathyroid hormon
479	10	35.7	34	23	ABB78382	Parathyroid hormon
480	10	35.7	34	23	ABB78386	Parathyroid hormon
481	10	35.7	34	23	ABB78387	Parathyroid hormon
482	10	35.7	34	23	AAU73110	Parathyroid hormon
483	10	35.7	34	23	AAU73111	Parathyroid hormon
484	10	35.7	34	23	AAU73112	Parathyroid hormon
485	10	35.7	34	23	AAU73113	Parathyroid hormon
486	10	35.7	34	23	AAU73114	Parathyroid hormon
487	10	35.7	34	23	AAU73120	Parathyroid hormon
488	10	35.7	34	23	AAU73121	Parathyroid hormon
489	10	35.7	34	23	AAU73123	Parathyroid hormon
490	10	35.7	34	23	AAU73127	Parathyroid hormon
491	10	35.7	34	23	AAU73129	Parathyroid hormon
492	10	35.7	34	23	AAU73131	Parathyroid hormon
493	10	35.7	34	23	AAU73132	Parathyroid hormon
494	10	35.7	34	23	AAU73133	Parathyroid hormon
495	10	35.7	35	15	AAR45491	Parathyroid hormon
496	10	35.7	35	15	AAR45498	Parathyroid hormon
497	10	35.7	35	15	AAR45501	Parathyroid hormon
498	10	35.7	35	15	AAR45509	Parathyroid hormon
499	10	35.7	35	15	AAR45521	Parathyroid hormon
500	10	35.7	35	16	AAR69054	PTH analogue with
501	10	35.7	35	16	AAR69016	PTH analogue with
502	10	35.7	35	16	AAR69038	PTH analogue with
503	10	35.7	35	16	AAR69028	PTH analogue with
504	10	35.7	35	16	AAR69024	PTH analogue with
505	10	35.7	35	18	AAW13302	Truncated parathyr
506	10	35.7	35	18	AAW13335	Truncated parathyr

507	10	35.7	35	18	AAW13351	Truncated parathyr
508	10	35.7	35	18	AAW13321	Truncated parathyr
509	10	35.7	35	18	AAW13325	Truncated parathyr
510	10	35.7	35	18	AAW13313	Truncated parathyr
511	10	35.7	35	18	AAW12186	Parathyroid hormon
512	10	35.7	35	18	AAW12193	Parathyroid hormon
513	10	35.7	35	18	AAW12196	Parathyroid hormon
514	10	35.7	35	18	AAW12632	Parathyroid hormon
515	10	35.7	35	18	AAW12644	Parathyroid hormon
516	10	35.7	35	19	AAW61692	Parathyroid hormon
517	10	35.7	35	19	AAW61699	Parathyroid hormon
518	10	35.7	35	19	AAW61701	Parathyroid hormon
519	10	35.7	35	19	AAW61679	Parathyroid hormon
520	10	35.7	35	19	AAW61724	Parathyroid hormon
521	10	35.7	35	19	AAW61710	Parathyroid hormon
522	10	35.7	35	19	AAW66052	Parathyroid hormon
523	10	35.7	35	19	AAW66036	Parathyroid hormon
524	10	35.7	35	19	AAW66022	Parathyroid hormon
525	10	35.7	35	19	AAW66026	Parathyroid hormon
526	10	35.7	35	19	AAW65999	Parathyroid hormon
527	10	35.7	35	19	AAW42613	Parathyroid hormon
528	10	35.7	35	19	AAW42595	Parathyroid hormon
529	10	35.7	35	19	AAW42583	Parathyroid hormon
530	10	35.7	35	19	AAW42563	Parathyroid hormon
531	10	35.7	35	19	AAW42570	Parathyroid hormon
532	10	35.7	35	19	AAW42573	Parathyroid hormon
533	10	35.7	35	20	AAW74395	Modified parathyro
534	10	35.7	35	20	AAW74375	Modified parathyro
535	10	35.7	35	20	AAW74383	Modified parathyro
536	10	35.7	35	20	AAW74363	Modified parathyro
537	10	35.7	35	20	AAW74371	Modified parathyro
538	10	35.7	35	20	AAW81953	Human PTHrp(1-34)
539	10	35.7	35	20	AAW81944	Synthetic PTH and
540	10	35.7	35	20	AAW81928	Synthetic PTH and
541	10	35.7	35	20	AAW81914	Synthetic PTH and
542	10	35.7	35	20	AAW81918	Synthetic PTH and
543	10	35.7	35	20	AAW81895	Synthetic PTH and
544	10	35.7	35	20	AAW81906	Synthetic PTH and
545	10	35.7	35	23	ABB78381	Parathyroid hormon
546	10	35.7	36	15	AAR45520	Parathyroid hormon
547	10	35.7	36	16	AAR69053	PTH analogue with
548	10	35.7	36	18	AAW13346	Truncated parathyr
549	10	35.7	36	18	AAW13350	Truncated parathyr
550	10	35.7	36	18	AAW12639	Parathyroid hormon
551	10	35.7	36	18	AAW12643	Parathyroid hormon
552	10	35.7	36	19	AAW61723	Parathyroid hormon
553	10	35.7	36	19	AAW61720	Parathyroid hormon
554	10	35.7	36	19	AAW66051	Parathyroid hormon
555	10	35.7	36	19	AAW66047	Parathyroid hormon
556	10	35.7	36	19	AAW42594	Parathyroid hormon
557	10	35.7	36	20	AAW74390	Modified parathyro
558	10	35.7	36	20	AAW74394	Modified parathyro
559	10	35.7	36	20	AAW81943	Synthetic PTH and
560	10	35.7	36	20	AAW81939	Synthetic PTH and
561	10	35.7	37	15	AAR45469	Parathyroid hormon
562	10	35.7	37	15	AAR45492	Parathyroid hormon
563	10	35.7	37	15	AAR45504	Parathyroid hormon

564	10	35.7	37	15	AAR45515	Parathyroid hormon
565	10	35.7	37	15	AAR45516	Parathyroid hormon
566	10	35.7	37	15	AAR45517	Parathyroid hormon
567	10	35.7	37	15	AAR45519	Parathyroid hormon
568	10	35.7	37	16	AAR69048	PTH analogue with
569	10	35.7	37	16	AAR69049	PTH analogue with
570	10	35.7	37	16	AAR69050	PTH analogue with
571	10	35.7	37	16	AAR69052	PTH analogue with
572	10	35.7	37	16	AAR69033	PTH analogue with
573	10	35.7	37	16	AAR69017	PTH analogue with
574	10	35.7	37	16	AAR68996	PTH analogue with
575	10	35.7	37	18	AAW13345	Truncated parathyr
576	10	35.7	37	18	AAW13347	Truncated parathyr
577	10	35.7	37	18	AAW13349	Truncated parathyr
578	10	35.7	37	18	AAW13330	Truncated parathyr
579	10	35.7	37	18	AAW13314	Truncated parathyr
580	10	35.7	37	18	AAW13287	Truncated parathyr
581	10	35.7	37	18	AAW12166	Parathyroid hormon
582	10	35.7	37	18	AAW12187	Parathyroid hormon
583	10	35.7	37	18	AAW12199	Parathyroid hormon
584	10	35.7	37	18	AAW12638	Parathyroid hormon
585	10	35.7	37	18	AAW12640	Parathyroid hormon
586	10	35.7	37	18	AAW12642	Parathyroid hormon
587	10	35.7	37	19	AAW61693	Parathyroid hormon
588	10	35.7	37	19	AAW61722	Parathyroid hormon
589	10	35.7	37	19	AAW61706	Parathyroid hormon
590	10	35.7	37	19	AAW61719	Parathyroid hormon
591	10	35.7	37	19	AAW61665	Parathyroid hormon
592	10	35.7	37	19	AAW66048	Parathyroid hormon
593	10	35.7	37	19	AAW66050	Parathyroid hormon
594	10	35.7	37	19	AAW66031	Parathyroid hormon
595	10	35.7	37	19	AAW66046	Parathyroid hormon
596	10	35.7	37	19	AAW66015	Parathyroid hormon
597	10	35.7	37	19	AAW65984	Parathyroid hormon
598	10	35.7	37	19	AAW42593	Parathyroid hormon
599	10	35.7	37	19	AAW42578	Parathyroid hormon
600	10	35.7	37	19	AAW42589	Parathyroid hormon
601	10	35.7	37	19	AAW42590	Parathyroid hormon
602	10	35.7	37	19	AAW42591	Parathyroid hormon
603	10	35.7	37	19	AAW42564	Parathyroid hormon
604	10	35.7	37	19	AAW42550	Parathyroid hormon
605	10	35.7	37	20	AAW74344	Modified parathyro
606	10	35.7	37	20	AAW74389	Modified parathyro
607	10	35.7	37	20	AAW74391	Modified parathyro
608	10	35.7	37	20	AAW74393	Modified parathyro
609	10	35.7	37	20	AAW74378	Modified parathyro
610	10	35.7	37	20	AAW74364	Modified parathyro
611	10	35.7	37	20	AAW81940	Synthetic PTH and
612	10	35.7	37	20	AAW81942	Synthetic PTH and
613	10	35.7	37	20	AAW81938	Synthetic PTH and
614	10	35.7	37	20	AAW81923	Synthetic PTH and
615	10	35.7	37	20	AAW81907	Synthetic PTH and
616	10	35.7	37	20	AAW81880	Synthetic PTH and
617	10	35.7	37	23	ABB82207	Chimeric PTH1R ago
618	10	35.7	37	23	AAU73122	Parathyroid hormon
619	10	35.7	38	15	AAR45518	Parathyroid hormon
620	10	35.7	38	15	AAR45531	Parathyroid hormon

621	10	35.7	38	16	AAR69051	PTH analogue with
622	10	35.7	38	16	AAR69018	PTH analogue with
623	10	35.7	38	18	AAW13315	Truncated parathyr
624	10	35.7	38	18	AAW13348	Truncated parathyr
625	10	35.7	38	18	AAW12641	Parathyroid hormon
626	10	35.7	38	18	AAW12654	Parathyroid hormon
627	10	35.7	38	19	AAW61694	Parathyroid hormon
628	10	35.7	38	19	AAW61721	Parathyroid hormon
629	10	35.7	38	19	AAW66049	Parathyroid hormon
630	10	35.7	38	19	AAW66016	Parathyroid hormon
631	10	35.7	38	19	AAW42592	Parathyroid hormon
632	10	35.7	38	19	AAW42606	Parathyroid hormon
633	10	35.7	38	20	AAW05298	PTHrp analogue fra
634	10	35.7	38	20	AAW74392	Modified parathyro
635	10	35.7	38	20	AAW74365	Modified parathyro
636	10	35.7	38	20	AAW81941	Synthetic PTH and
637	10	35.7	38	20	AAW81908	Synthetic PTH and
638	10	35.7	38	23	ABB78388	Parathyroid hormon
639	9	32.1	30	23	AAU73161	Parathyroid hormon
640	9	32.1	34	15	AAR45472	Parathyroid hormon
641	9	32.1	34	16	AAR68999	PTH analogue with
642	9	32.1	34	18	AAW13290	Truncated parathyr
643	9	32.1	34	18	AAW12169	Parathyroid hormon
644	9	32.1	34	19	AAW61668	Parathyroid hormon
645	9	32.1	34	19	AAW65987	Parathyroid hormon
646	9	32.1	34	19	AAW42557	Parathyroid hormon
647	9	32.1	34	20	AAW02583	Parathyroid hormon
648	9	32.1	34	20	AAW74347	Modified parathyro
649	9	32.1	34	20	AAW81883	Synthetic PTH and
650	9	32.1	34	23	AAU73125	Parathyroid hormon
651	9	32.1	36	15	AAR58041	[L8,D10,K11,S14,I1
652	8	28.6	30	23	AAU73166	Parathyroid hormon
653	8	28.6	34	15	AAR45475	Parathyroid hormon
654	8	28.6	34	15	AAR45476	Parathyroid hormon
655	8	28.6	34	15	AAR45477	Parathyroid hormon
656	8	28.6	34	15	AAR45478	Parathyroid hormon
657	8	28.6	34	15	AAR45495	Parathyroid hormon
658	8	28.6	34	15	AAR45496	Parathyroid hormon
659	8	28.6	34	15	AAR45497	Parathyroid hormon
660	8	28.6	34	16	AAR69002	PTH analogue with
661	8	28.6	34	16	AAR69003	PTH analogue with
662	8	28.6	34	16	AAR69004	PTH analogue with
663	8	28.6	34	16	AAR69005	PTH analogue with
664	8	28.6	34	16	AAR69020	PTH analogue with
665	8	28.6	34	16	AAR69021	PTH analogue with
666	8	28.6	34	16	AAR69022	PTH analogue with
667	8	28.6	34	18	AAW13317	Truncated parathyr
668	8	28.6	34	18	AAW13318	Truncated parathyr
669	8	28.6	34	18	AAW13319	Truncated parathyr
670	8	28.6	34	18	AAW13293	Truncated parathyr
671	8	28.6	34	18	AAW13294	Truncated parathyr
672	8	28.6	34	18	AAW13295	Truncated parathyr
673	8	28.6	34	18	AAW13296	Truncated parathyr
674	8	28.6	34	18	AAW12172	Parathyroid hormon
675	8	28.6	34	18	AAW12173	Parathyroid hormon
676	8	28.6	34	18	AAW12174	Parathyroid hormon
677	8	28.6	34	18	AAW12175	Parathyroid hormon

678	8	28.6	34	18	AAW12189	Parathyroid hormon
679	8	28.6	34	18	AAW12190	Parathyroid hormon
680	8	28.6	34	18	AAW12191	Parathyroid hormon
681	8	28.6	34	18	AAW12192	Parathyroid hormon
682	8	28.6	34	19	AAW61696	Parathyroid hormon
683	8	28.6	34	19	AAW61697	Parathyroid hormon
684	8	28.6	34	19	AAW61698	Parathyroid hormon
685	8	28.6	34	19	AAW61672	Parathyroid hormon
686	8	28.6	34	19	AAW61673	Parathyroid hormon
687	8	28.6	34	19	AAW61671	Parathyroid hormon
688	8	28.6	34	19	AAW66018	Parathyroid hormon
689	8	28.6	34	19	AAW66019	Parathyroid hormon
690	8	28.6	34	19	AAW66020	Parathyroid hormon
691	8	28.6	34	19	AAW65990	Parathyroid hormon
692	8	28.6	34	19	AAW65991	Parathyroid hormon
693	8	28.6	34	19	AAW65992	Parathyroid hormon
694	8	28.6	34	19	AAW42568	Parathyroid hormon
695	8	28.6	34	19	AAW42618	Parathyroid hormon
696	8	28.6	34	19	AAW42619	Parathyroid hormon
697	8	28.6	34	19	AAW42566	Parathyroid hormon
698	8	28.6	34	19	AAW42567	Parathyroid hormon
699	8	28.6	34	19	AAW42569	Parathyroid hormon
700	8	28.6	34	19	AAW42547	Parathyroid hormon
701	8	28.6	34	19	AAW42548	Parathyroid hormon
702	8	28.6	34	20	AAW74350	Modified parathyro
703	8	28.6	34	20	AAW74351	Modified parathyro
704	8	28.6	34	20	AAW74352	Modified parathyro
705	8	28.6	34	20	AAW74353	Modified parathyro
706	8	28.6	34	20	AAW74367	Modified parathyro
707	8	28.6	34	20	AAW74368	Modified parathyro
708	8	28.6	34	20	AAW74369	Modified parathyro
709	8	28.6	34	20	AAW74370	Modified parathyro
710	8	28.6	34	20	AAW81910	Synthetic PTH and
711	8	28.6	34	20	AAW81911	Synthetic PTH and
712	8	28.6	34	20	AAW81912	Synthetic PTH and
713	8	28.6	34	20	AAW81886	Synthetic PTH and
714	8	28.6	34	20	AAW81887	Synthetic PTH and
715	8	28.6	34	20	AAW81888	Synthetic PTH and
716	8	28.6	34	20	AAW81889	Synthetic PTH and
717	8	28.6	34	23	AAU73130	Parathyroid hormon
718	8	28.6	35	16	AAR69060	PTH analogue with
719	8	28.6	35	18	AAW13357	Truncated parathyr
720	8	28.6	35	18	AAW12649	Parathyroid hormon
721	8	28.6	35	19	AAW61730	Parathyroid hormon
722	8	28.6	35	19	AAW66058	Parathyroid hormon
723	8	28.6	35	19	AAW42600	Parathyroid hormon
724	8	28.6	35	20	AAW74401	Modified parathyro
725	8	28.6	35	20	AAW81950	Synthetic PTH and
726	8	28.6	37	15	AAR45526	Parathyroid hormon
727	8	28.6	39	16	AAR69059	PTH analogue with
728	8	28.6	39	19	AAW42599	Parathyroid hormon
729	7	25.0	28	13	AAR22068	Modified [Nle_8,_1
730	7	25.0	28	13	AAR22074	Modified [Nle_8,_1
731	7	25.0	28	23	AAU73045	Parathyroid hormon
732	7	25.0	28	23	AAU73065	Parathyroid hormon
733	7	25.0	30	23	AAU73056	Parathyroid hormon
734	7	25.0	30	23	AAU73061	Parathyroid hormon

735	7	25.0	30	23	AAU73160	Parathyroid hormon
736	7	25.0	32	20	AAU05295	PTHrp analogue fra
737	7	25.0	32	23	ABB78385	Parathyroid hormon
738	7	25.0	32	23	AAU73041	Parathyroid hormon
739	7	25.0	33	9	AAP82179	Sequence of parath
740	7	25.0	34	6	AAP50517	Sequence of methio
741	7	25.0	34	9	AAP82180	Sequence of parath
742	7	25.0	34	11	AAR07923	Rat parathyroid ho
743	7	25.0	34	11	AAR07925	Human parathyroid
744	7	25.0	34	13	AAR22293	Human parathyroid
745	7	25.0	34	15	AAR45489	Parathyroid hormon
746	7	25.0	34	15	AAR58040	[L8,Q18,A29,E30,I3
747	7	25.0	34	15	AAR58045	[L8,Q16,D17,L18,R1
748	7	25.0	34	15	AAR58048	[L8,Q16,R22,T33,A3
749	7	25.0	34	15	AAR58054	[L8,A17,Q18,A19,R2
750	7	25.0	34	15	AAR55817	[L8,Q18,T33,A34]-h
751	7	25.0	34	15	AAR55818	[L8,A16,Q18,A19,T3
752	7	25.0	34	15	AAR55819	[L8,A16,Q18,T33,A3
753	7	25.0	34	15	AAR58034	Isopropyl-[L8,K(Is
754	7	25.0	34	16	AAR69014	PTH analogue with
755	7	25.0	34	16	AAR68998	PTH analogue with
756	7	25.0	34	18	AAW13311	Truncated parathyr
757	7	25.0	34	18	AAW13289	Truncated parathyr
758	7	25.0	34	18	AAW12168	Parathyroid hormon
759	7	25.0	34	18	AAW12184	Parathyroid hormon
760	7	25.0	34	18	AAW24274	Parathyroid hormon
761	7	25.0	34	19	AAW61690	Parathyroid hormon
762	7	25.0	34	19	AAW61667	Parathyroid hormon
763	7	25.0	34	19	AAW66012	Parathyroid hormon
764	7	25.0	34	19	AAW65986	Parathyroid hormon
765	7	25.0	34	19	AAW42561	Parathyroid hormon
766	7	25.0	34	19	AAW42556	Parathyroid hormon
767	7	25.0	34	19	AAW48395	Human PTH/PTHrP hy
768	7	25.0	34	20	AAU05294	PTHrp analogue fra
769	7	25.0	34	20	AAW74346	Modified parathyro
770	7	25.0	34	20	AAW74361	Modified parathyro
771	7	25.0	34	20	AAW81904	Synthetic PTH and
772	7	25.0	34	20	AAW81882	Synthetic PTH and
773	7	25.0	34	21	ABJ10707	Human parathyroid
774	7	25.0	34	21	ABJ10717	Human parathyroid
775	7	25.0	34	23	ABB78384	Parathyroid hormon
776	7	25.0	34	23	AAU73033	Parathyroid hormon
777	7	25.0	34	23	AAU73038	Parathyroid hormon
778	7	25.0	34	23	AAU73124	Parathyroid hormon
779	7	25.0	35	15	AAR45471	Parathyroid hormon
780	7	25.0	35	16	AAR74512	Parathyroid hormon
781	7	25.0	35	16	AAR74513	Parathyroid hormon
782	7	25.0	35	16	AAR74514	Parathyroid hormon
783	7	25.0	35	16	AAR74515	Parathyroid hormon
784	7	25.0	35	16	AAR74516	Parathyroid hormon
785	7	25.0	35	16	AAR74517	Parathyroid hormon
786	7	25.0	35	16	AAR74518	Parathyroid hormon
787	7	25.0	35	16	AAR74519	Parathyroid hormon
788	7	25.0	35	16	AAR74520	Parathyroid hormon
789	7	25.0	35	16	AAR74527	Human parathyroid
790	7	25.0	35	16	AAR74496	Parathyroid hormon
791	7	25.0	35	16	AAR74497	Parathyroid hormon

792	7	25.0	35	16	AAR74498	Parathyroid hormon
793	7	25.0	35	16	AAR74499	Parathyroid hormon
794	7	25.0	35	16	AAR74500	Parathyroid hormon
795	7	25.0	35	16	AAR74501	Parathyroid hormon
796	7	25.0	35	16	AAR74502	Parathyroid hormon
797	7	25.0	35	16	AAR74503	Parathyroid hormon
798	7	25.0	35	16	AAR74504	Parathyroid hormon
799	7	25.0	35	16	AAR74505	Parathyroid hormon
800	7	25.0	35	16	AAR74506	Parathyroid hormon
801	7	25.0	35	16	AAR74507	Parathyroid hormon
802	7	25.0	35	16	AAR74508	Parathyroid hormon
803	7	25.0	35	16	AAR74509	Parathyroid hormon
804	7	25.0	35	16	AAR74510	Parathyroid hormon
805	7	25.0	35	16	AAR74511	Parathyroid hormon
806	7	25.0	35	16	AAR74480	Parathyroid hormon
807	7	25.0	35	16	AAR74481	Parathyroid hormon
808	7	25.0	35	16	AAR74482	Parathyroid hormon
809	7	25.0	35	16	AAR74483	Parathyroid hormon
810	7	25.0	35	16	AAR74484	Parathyroid hormon
811	7	25.0	35	16	AAR74485	Parathyroid hormon
812	7	25.0	35	16	AAR74486	Parathyroid hormon
813	7	25.0	35	16	AAR74487	Parathyroid hormon
814	7	25.0	35	16	AAR74488	Parathyroid hormon
815	7	25.0	35	16	AAR74489	Parathyroid hormon
816	7	25.0	35	16	AAR74490	Parathyroid hormon
817	7	25.0	35	16	AAR74491	Parathyroid hormon
818	7	25.0	35	16	AAR74492	Parathyroid hormon
819	7	25.0	35	16	AAR74493	Parathyroid hormon
820	7	25.0	35	16	AAR74494	Parathyroid hormon
821	7	25.0	35	16	AAR74495	Parathyroid hormon
822	7	25.0	35	16	AAR74467	Parathyroid hormon
823	7	25.0	35	16	AAR74468	Parathyroid hormon
824	7	25.0	35	16	AAR74469	Parathyroid hormon
825	7	25.0	35	16	AAR74470	Parathyroid hormon
826	7	25.0	35	16	AAR74471	Parathyroid hormon
827	7	25.0	35	16	AAR74472	Parathyroid hormon
828	7	25.0	35	16	AAR74473	Parathyroid hormon
829	7	25.0	35	16	AAR74474	Parathyroid hormon
830	7	25.0	35	16	AAR74475	Parathyroid hormon
831	7	25.0	35	16	AAR74476	Parathyroid hormon
832	7	25.0	35	16	AAR74477	Parathyroid hormon
833	7	25.0	35	16	AAR74478	Parathyroid hormon
834	7	25.0	35	16	AAR74479	Parathyroid hormon
835	7	25.0	35	16	AAR74432	Parathyroid hormon
836	7	25.0	35	16	AAR74433	Parathyroid hormon
837	7	25.0	35	16	AAR74434	Parathyroid hormon
838	7	25.0	35	16	AAR74435	Parathyroid hormon
839	7	25.0	35	16	AAR74436	Parathyroid hormon
840	7	25.0	35	16	AAR74437	Parathyroid hormon
841	7	25.0	35	16	AAR74438	Parathyroid hormon
842	7	25.0	35	16	AAR74439	Parathyroid hormon
843	7	25.0	35	16	AAR74440	Parathyroid hormon
844	7	25.0	35	16	AAR74441	Parathyroid hormon
845	7	25.0	35	16	AAR74442	Parathyroid hormon
846	7	25.0	35	16	AAR74443	Parathyroid hormon
847	7	25.0	35	16	AAR74444	Parathyroid hormon
848	7	25.0	35	16	AAR74445	Parathyroid hormon

849	7	25.0	35	16	AAR74446	Parathyroid hormon
850	7	25.0	35	16	AAR74447	Parathyroid hormon
851	7	25.0	35	16	AAR74414	Parathyroid hormon
852	7	25.0	35	16	AAR74415	Parathyroid hormon
853	7	25.0	35	16	AAR74416	Parathyroid hormon
854	7	25.0	35	16	AAR74417	Parathyroid hormon
855	7	25.0	35	16	AAR74418	Parathyroid hormon
856	7	25.0	35	16	AAR74419	Parathyroid hormon
857	7	25.0	35	16	AAR74420	Parathyroid hormon
858	7	25.0	35	16	AAR74421	Parathyroid hormon
859	7	25.0	35	16	AAR74422	Parathyroid hormon
860	7	25.0	35	16	AAR74423	Parathyroid hormon
861	7	25.0	35	16	AAR74424	Parathyroid hormon
862	7	25.0	35	16	AAR74425	Parathyroid hormon
863	7	25.0	35	16	AAR74426	Parathyroid hormon
864	7	25.0	35	16	AAR74429	Parathyroid hormon
865	7	25.0	35	16	AAR74430	Parathyroid hormon
866	7	25.0	35	16	AAR74431	Parathyroid hormon
867	7	25.0	35	16	AAR74398	Parathyroid hormon
868	7	25.0	35	16	AAR74399	Parathyroid hormon
869	7	25.0	35	16	AAR74400	Parathyroid hormon
870	7	25.0	35	16	AAR74401	Parathyroid hormon
871	7	25.0	35	16	AAR74402	Parathyroid hormon
872	7	25.0	35	16	AAR74403	Parathyroid hormon
873	7	25.0	35	16	AAR74404	Parathyroid hormon
874	7	25.0	35	16	AAR74405	Parathyroid hormon
875	7	25.0	35	16	AAR74406	Parathyroid hormon
876	7	25.0	35	16	AAR74407	Parathyroid hormon
877	7	25.0	35	16	AAR74408	Parathyroid hormon
878	7	25.0	35	16	AAR74409	Parathyroid hormon
879	7	25.0	35	16	AAR74412	Parathyroid hormon
880	7	25.0	35	16	AAR74413	Parathyroid hormon
881	7	25.0	35	16	AAR74394	Parathyroid hormon
882	7	25.0	35	16	AAR74397	Parathyroid hormon
883	7	25.0	36	15	AAR58043	[L8,Q16,D17,L18,R1
884	7	25.0	36	15	AAR58046	[L8,A16,D17,L18,A1
885	7	25.0	36	15	AAR58050	[L8,A16,D17,Q18,A1
886	7	25.0	36	15	AAR58051	[L8,A16,A17,Q18,A1
887	7	25.0	36	15	AAR58052	[L8,A17,Q18,A19]-h
888	7	25.0	36	15	AAR58053	[L8,A17,Q18,A19,R2
889	7	25.0	36	15	AAR58055	[L8,Q18]-hPTH(1-36
890	7	25.0	36	15	AAR58060	[L8,A16,Q18,A19,R2
891	7	25.0	36	15	AAR58067	[L8,A16,A17,A18,A1
892	7	25.0	36	15	AAR58069	Isopropyl-[L8,K(Is
893	7	25.0	36	15	AAR58070	Isopropyl-[L8,K(Is
894	7	25.0	36	15	AAR55825	[L8,A16,Q18,A19]-h
895	7	25.0	36	15	AAR58027	[A1,A3,L8,Q18]-hPT
896	7	25.0	36	15	AAR58032	[L8,A16,D17,L18,R1
897	7	25.0	36	15	AAR58074	[L8,Y18]-hPTH(1-36
898	7	25.0	36	15	AAR58086	[1-amino-cyclopent
899	7	25.0	38	15	AAR58269	[Leu8]-hPTH(1-38)-
900	6	21.4	28	9	AAp82189	Sequence of parath
901	6	21.4	28	13	AAR22062	Modified [Nle_8,18
902	6	21.4	28	23	AAU73048	Parathyroid hormon
903	6	21.4	28	23	AAU73067	Parathyroid hormon
904	6	21.4	30	20	AAy50601	Resin bound cyclic
905	6	21.4	30	22	AAB91092	Parathyroid hormon

906	6	21.4	30	23	AAU73058	Parathyroid hormon
907	6	21.4	32	22	AAB91090	Parathyroid hormon
908	6	21.4	32	22	AAB91091	Parathyroid hormon
909	6	21.4	32	22	AAB91094	Parathyroid hormon
910	6	21.4	32	23	AAU73043	Parathyroid hormon
911	6	21.4	34	9	AAP82178	Sequence of parath
912	6	21.4	34	11	AAR07924	Bovine parathyroid
913	6	21.4	34	15	AAR45488	Parathyroid hormon
914	6	21.4	34	15	AAR45529	Parathyroid hormon
915	6	21.4	34	15	AAR58258	[A1,H5,L8,D10,K11,
916	6	21.4	34	15	AAR58059	[L8,Q13,A16,Q18,A1
917	6	21.4	34	15	AAR58062	[L8,Q13,A16,Q18,A1
918	6	21.4	34	15	AAR58063	[L8,Q13,A16,Q18,R1
919	6	21.4	34	15	AAR58066	[L8,Q13,A16,Q18,A1
920	6	21.4	34	15	AAR58020	[A1,A3,L8,Q13,A16,
921	6	21.4	34	15	AAR58025	[A1,A3,L8,Q13,A16,
922	6	21.4	34	15	AAR58033	[L8,A13,Q18,Q26,F2
923	6	21.4	34	15	AAR58035	Isopropyl- [L8,A13,
924	6	21.4	34	15	AAR58038	[A1,A3,L8,Q13,A16,
925	6	21.4	34	15	AAR58039	[A1,A3,L8,Q13,A16,
926	6	21.4	34	16	AAR69011	PTH analogue with
927	6	21.4	34	16	AAR69012	PTH analogue with
928	6	21.4	34	18	AAW13309	Truncated parathyr
929	6	21.4	34	18	AAW13308	Truncated parathyr
930	6	21.4	34	18	AAW12183	Parathyroid hormon
931	6	21.4	34	18	AAW12652	Parathyroid hormon
932	6	21.4	34	18	AAW18686	[Cha15,Glu22,25,29
933	6	21.4	34	19	AAW61687	Parathyroid hormon
934	6	21.4	34	19	AAW61688	Parathyroid hormon
935	6	21.4	34	19	AAW66009	Parathyroid hormon
936	6	21.4	34	19	AAW66010	Parathyroid hormon
937	6	21.4	34	19	AAW42604	Parathyroid hormon
938	6	21.4	34	19	AAW42560	Parathyroid hormon
939	6	21.4	34	20	AAV50588	Resin bound cyclic
940	6	21.4	34	20	AAV04236	Human parathyroid
941	6	21.4	34	20	AAW74402	Modified parathyro
942	6	21.4	34	20	AAW74382	Modified parathyro
943	6	21.4	34	20	AAW74360	Modified parathyro
944	6	21.4	34	20	AAW81901	Synthetic PTH and
945	6	21.4	34	20	AAW81902	Synthetic PTH and
946	6	21.4	34	23	ABB78383	Parathyroid hormon
947	6	21.4	34	23	AAU73035	Parathyroid hormon
948	6	21.4	35	16	AAR74465	Parathyroid hormon
949	6	21.4	35	16	AAR74466	Parathyroid hormon
950	6	21.4	35	16	AAR74448	Parathyroid hormon
951	6	21.4	35	16	AAR74449	Parathyroid hormon
952	6	21.4	35	16	AAR74450	Parathyroid hormon
953	6	21.4	35	16	AAR74451	Parathyroid hormon
954	6	21.4	35	16	AAR74411	Parathyroid hormon
955	6	21.4	35	16	AAR74396	Parathyroid hormon
956	6	21.4	36	15	AAR58064	[L8,S13,A16,Q18,A1
957	6	21.4	36	15	AAR58065	[L8,A13,A16,Q18,A1
958	6	21.4	36	15	AAR58068	Isopropyl- [L8,A13,
959	6	21.4	36	15	AAR58073	Isopropyl- [L8,S13,
960	6	21.4	36	15	AAR58087	[1-amino-cyclopent
961	6	21.4	38	15	AAR58037	[Ser14]-hPTH(1-38)
962	5	17.9	28	9	AAP82184	Sequence of parath

963	5	17.9	28	9	AAP82187	Sequence of parath
964	5	17.9	28	13	AAR22058	Modified bovine PT
965	5	17.9	28	13	AAR22059	Modified [Tyr_34]b
966	5	17.9	28	13	AAR22064	Modified hPTH(7-34
967	5	17.9	28	13	AAR22065	Modified [Tyr_34]h
968	5	17.9	28	13	AAR22067	Modified [Nle_8,_1
969	5	17.9	28	13	AAR22071	Modified [Tyr_34]r
970	5	17.9	28	13	AAR22073	Modified [Nle_8,_1
971	5	17.9	28	17	AAR88837	Human parathyroid
972	5	17.9	28	17	AAR88838	Human parathyroid
973	5	17.9	28	20	AAV50589	Resin bound cyclic
974	5	17.9	28	20	AAV50591	Resin bound cyclic
975	5	17.9	28	20	AAV50592	Resin bound cyclic
976	5	17.9	28	20	AAV04240	Human parathyroid
977	5	17.9	28	20	AAV04247	Human parathyroid
978	5	17.9	28	20	AAV04248	Human parathyroid
979	5	17.9	28	20	AAV04253	Human parathyroid
980	5	17.9	28	20	AAV04226	Human parathyroid
981	5	17.9	28	21	ABJ10774	Human parathyroid
982	5	17.9	28	21	ABJ10775	Human parathyroid
983	5	17.9	28	21	ABJ10776	Human parathyroid
984	5	17.9	28	21	AAV98041	Human parathyroid
985	5	17.9	28	21	AAV98042	Human parathyroid
986	5	17.9	28	21	AAV98044	Human parathyroid
987	5	17.9	28	21	AAV98046	Human parathyroid
988	5	17.9	28	21	AAV98048	Human parathyroid
989	5	17.9	28	21	AAV98050	Human parathyroid
990	5	17.9	28	21	AAV98052	Human parathyroid
991	5	17.9	28	22	AAB81074	Human parathyroid
992	5	17.9	28	22	AAB81078	Human parathyroid
993	5	17.9	28	22	AAB91115	Parathyroid hormon
994	5	17.9	28	23	AAE23734	Human parathyroid
995	5	17.9	28	23	AAE18404	Bovine PTH peptide
996	5	17.9	28	23	AAE18405	Bovine PTH peptide
997	5	17.9	28	23	AAU73044	Parathyroid hormon
998	5	17.9	28	23	AAU73046	Parathyroid hormon
999	5	17.9	28	23	AAU73047	Parathyroid hormon
1000	5	17.9	28	23	AAU73064	Parathyroid hormon

ALIGNMENTS

RESULT 1

AAR21481

ID AAR21481 standard; Protein; 28 AA.

XX

AC AAR21481;

XX

DT 05-JUN-1992 (first entry)

XX

DE Asn10, Leu11, [Lys11/13 (epsilon-(N-biotin/biotinyl- aminoacyl))]-

DE hHCF (7-34)NH2.

XX

KW Lysine modification; probes; parathyroid hormone; osteoporosis;

KW biotinylation; humoral hypercalcaemic factor (HCF); antagonist.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 5

FT /label= OTHER

FT /note= "OTHER= epsilon-amino gp. has biotin or

FT biotinyl-aminoacyl"

FT Modified-site 7

FT /label= OTHER

FT /note= "OTHER= epsilon-amino gp. has biotin or

FT biotinyl-aminoacyl"

XX

PN US5087561-A.

XX

PD 11-FEB-1992.

XX

PF 28-JUN-1990; 90US-0545256.

XX

PR 28-JUN-1990; 90US-0545256.

XX

PA (MERI) MERCK & CO INC.

XX

PI Rosenblatt M, Chorev M, Roubini E, Nutt RF, Duong LT;

XX

DR WPI; 1992-072189/09.

XX

PT New biotin-modified humoral hypercalcaemic factor antagonist -

PT useful in treatment and diagnosis of e.g. tumours,

PT hypercalcaemia, osteoporosis and hyperparathyroidism

XX

PS Disclosure; Page 2; 6pp; English.

XX

CC The peptide was prepd. by solid phase synthesis using a 4-methyl

CC benzhydrylamine.HCl resin. The substn. of the epsilon-NH2 of Lys11

CC or Lys13 was carried out by incorporation of N-alpha-Boc-Lys

CC (epsilon-Fmoc)-OH in position 11 or 13, deprotonation and mod-

CC ification of the free epsilon-NH2 in Lys11 or 13. The peptide was

CC cleaved from the resin and purified. Note that only Lys11 or Lys13

CC are modified, but not both. The peptide has high binding affinity

CC for hypercalcaemic factor cell surface receptors while not stimulating

CC the prodn. of second messengers. The peptide can be used for treating

CC e.g. osteoporosis, hypercalcaemia, hyperparathyroidism and related

CC aspects i.e. hypercalcaemic crisis, renal failure and hypertension

CC tumours. The peptide may be used to treat immune diseases in which

CC the diseased state is manifested by inflammation, an allergic response

CC or hyperactive lymphocytes. Fragments of the peptide contg. the

CC receptor binding site can be used as inhibitors or blocking agents.

CC The peptides can also be used as probes to detect and facilitate

CC purification of parathyroid hormone receptor, and in vitro to measure

CC the concn. of naturally occurring HCF.

CC See also AAR21478-87 and AAR21488-97 (see US5087562).

XX

SQ Sequence 28 AA;

Query Match 100.0%; Score 28; DB 13; Length 28;

Best Local Similarity 100.0%; Pred. No. 1.7e-20;

Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 2

AAR21491

ID AAR21491 standard; Protein; 28 AA.

XX

AC AAR21491;

XX

DT 05-JUN-1992 (first entry)

XX

DE Desamino [Asn 10, Leu11, Lys13 (epsilon amino-(N,N-diisobutyl
DE or 3-phenyl propanoyl)) hHCF (7-34)NH2.

XX

KW Humoral hypercalcaemic factor (HCF); antagonist; tumours;
KW hypercalcaemia; osteoporosis; hyperparathyroidism.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 7

FT /label= OTHER

FT /note= "OTHER= epsilon amino-N,N-diisobutyl
FT or 3-phenyl propanoyl"

XX

PN US5087562-A.

XX

PD 11-FEB-1992.

XX

PF 25-APR-1990; 90US-0514633.

XX

PR 25-APR-1990; 90US-0514633.

XX

PA (MERI) MERCK & CO INC.

XX

PI Rosenblatt M, Roubini E, Chorev M, Nutt RF;

XX

DR WPI; 1992-072190/09.

XX

PT New di:isobutyl or phenyl:propanoyl modified HCF antagonist -
PT useful in treatment and diagnosis of e.g. tumours,
PT hypercalcaemia, osteoporosis and hyperparathyroidism

XX

PS Disclosure; Page 1; 6pp; English.

XX

CC The peptide was synthesised by a solid phase method using
CC a 4-methyl-benzhydrylamine.HCl resin. The substn. of the epsilon-
CC NH2 of Lys13 was carried out by incorporation of N-alpha-Boc-Lys-
CC (epsilon-Fmoc)-OH in position 13 and epsilon-amino Fmoc deprotonation
CC and modification of the free epsilon-NH2 in Lys13. The peptide was
CC cleaved from the resin, extracted and purified. Note that the
CC peptide is desamino i.e. there is no amino gp. on the N-terminus.
CC The peptides have high binding affinity for HCF cell surface receptors
CC while not stimulating the prodn. of second messenger molecules.

CC The peptide can be used for treating e.g. osteoporosis, hypercalcaemia,
CC hyperparathyroidism and related aspects i.e. hypercalcaemic crisis,
CC renal failure and hypertension tumours. The peptide may be used to
CC treat immune diseases in which the diseased state is manifested by
CC inflammation, an allergic response or hyperactive lymphocytes.
CC Fragments of the peptide contg. the receptor binding site can be used
CC as inhibitors or blocking agents. The peptides can also be used as
CC probes to detect and facilitate purification of parathyroid hormone
CC receptor, and in vitro to measure the concn. of naturally occurring HCF.
CC See also AAR21488-97 and AAR21478-87 (see US5087561).

XX
SQ Sequence 28 AA;

Query Match 100.0%; Score 28; DB 13; Length 28;
Best Local Similarity 100.0%; Pred. No. 1.7e-20;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28
|||
Db 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 3

AAU73081

ID AAU73081 standard; Peptide; 28 AA.

XX

AC AAU73081;

XX

DT 12-MAR-2002 (first entry)

XX

DE Parathyroid hormone PTH/PTHrP modulating domain #63.

XX

KW Human; parathyroid hormone; PTH; parathyroid hormone-related protein;
KW PTHrP; bone resorption inhibitor; osteoprotegrin; OPG; OPG-L antibody;
KW calcitonin; bisphosphonate; oestrogen; oestrogen receptor; tibolone;
KW osteopenia; hyperthyroidism; hypercalcaemia; tumour metastasis; bone;
KW breast cancer; prostate cancer; cachexia; anorexia; osteoporosis;
KW Paget's disease; osteomyelitis; osteonecrosis; bone cell death;
KW Gaucher's disease; sickle cell anaemia; systemic lupus erythematosus;
KW rheumatoid arthritis; periodontal disease; alopecia; fracture repair;
KW immunoglobulin G; IgG.

XX

OS Homo sapiens.

XX

PN WO200181415-A2.

XX

PD 01-NOV-2001.

XX

PF 27-APR-2001; 2001WO-US13528.

XX

PR 27-APR-2000; 2000US-200053P.

PR 28-JUN-2000; 2000US-214860P.

PR 06-FEB-2001; 2001US-266673P.

PR 26-APR-2001; 2001US-0843221.

XX

PA (AMGE-) AMGEN INC.

XX

PI Kostenuik P, Liu C, Lacey DL;
 XX
 DR WPI; 2002-066435/09.
 XX
 PT Composition, useful for treating osteopenia, comprises parathyroid
 PT hormone and parathyroid hormone-related protein receptor modulators -
 XX
 PS Claim 39; Page 28; 107pp; English.
 XX
 CC The invention relates to a composition (I) comprising modulators of
 CC parathyroid hormone (PTH) and parathyroid hormone-related protein (PTHrP)
 CC which comprise a PTH/PTHrP modulating domain and a vehicle. (I)
 CC comprising PTH agonist optionally with a bone resorption inhibitor, such
 CC as osteoprotegrin (OPG), OPG-L antibody, calcitonin, bisphosphonates,
 CC oestrogens, oestrogen receptor modulators and tibolone is useful for
 CC treating osteopenia. (I) is useful for therapeutic and prophylactic
 CC purposes. Antagonists of PTH receptor are useful in treating primary and
 CC secondary hyperthyroidism, hypercalcaemia, tumour metastases,
 CC particularly breast and prostate cancer, cachexia and anorexia,
 CC osteopenia, including various forms of osteoporosis, Paget's disease of
 CC bone, osteomyelitis, osteonecrosis or bone cell death, associated with
 CC traumatic injury or nontraumatic necrosis associated with Gaucher's
 CC disease, sickle cell anaemia, systemic lupus erythematosus, rheumatoid
 CC arthritis, periodontal disease and alopecia. PTH receptor agonists are
 CC useful as therapeutic agents in conditions including fracture repair
 CC (including healing of non-union fractures), osteopenia, including various
 CC forms of osteoporosis. AAU73018-AAU73181 represent parathyroid hormone
 CC and parathyroid hormone related protein (PTH/PTHrP) modulators and
 CC related amino acid sequences of the invention.
 XX
 SQ Sequence 28 AA;

Query Match 100.0%; Score 28; DB 23; Length 28;
 Best Local Similarity 100.0%; Pred. No. 1.7e-20;
 Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LLHNLGKSIQDLRRRFFLHHLIAEIHNTA 28
 |||||
 Db 1 LLHNLGKSIQDLRRRFFLHHLIAEIHNTA 28

RESULT 4

AAU73180

ID AAU73180 standard; Peptide; 29 AA.

XX

AC AAU73180;

XX

DT 12-MAR-2002 (first entry)

XX

DE Parathyroid hormone PTH/PTHrP modulating domain #162.

XX

KW Human; parathyroid hormone; PTH; parathyroid hormone-related protein;
 KW PTHrP; bone resorption inhibitor; osteoprotegrin; OPG; OPG-L antibody;
 KW calcitonin; bisphosphonate; oestrogen; oestrogen receptor; tibolone;
 KW osteopenia; hyperthyroidism; hypercalcaemia; tumour metastasis; bone;
 KW breast cancer; prostate cancer; cachexia; anorexia; osteoporosis;
 KW Paget's disease; osteomyelitis; osteonecrosis; bone cell death;

KW Gaucher's disease; sickle cell anaemia; systemic lupus erythematosus;
 KW rheumatoid arthritis; periodontal disease; alopecia; fracture repair;
 KW immunoglobulin G; IgG.
 XX
 OS Synthetic.
 XX
 PN WO200181415-A2.
 XX
 PD 01-NOV-2001.
 XX
 PF 27-APR-2001; 2001WO-US13528.
 XX
 PR 27-APR-2000; 2000US-200053P.
 PR 28-JUN-2000; 2000US-214860P.
 PR 06-FEB-2001; 2001US-266673P.
 PR 26-APR-2001; 2001US-0843221.
 XX
 PA (AMGE-) AMGEN INC.
 XX
 PI Kostenuik P, Liu C, Lacey DL;
 XX
 DR WPI; 2002-066435/09.
 XX
 PT Composition, useful for treating osteopenia, comprises parathyroid
 PT hormone and parathyroid hormone-related protein receptor modulators -
 XX
 PS Disclosure; Page 63; 107pp; English.
 XX
 CC The invention relates to a composition (I) comprising modulators of
 CC parathyroid hormone (PTH) and parathyroid hormone-related protein (PTHrP)
 CC which comprise a PTH/PTHrP modulating domain and a vehicle. (I)
 CC comprising PTH agonist optionally with a bone resorption inhibitor, such
 CC as osteoprotegerin (OPG), OPG-L antibody, calcitonin, bisphosphonates,
 CC oestrogens, oestrogen receptor modulators and tibolone is useful for
 CC treating osteopenia. (I) is useful for therapeutic and prophylactic
 CC purposes. Antagonists of PTH receptor are useful in treating primary and
 CC secondary hyperthyroidism, hypercalcaemia, tumour metastases,
 CC particularly breast and prostate cancer, cachexia and anorexia,
 CC osteopenia, including various forms of osteoporosis, Paget's disease of
 CC bone, osteomyelitis, osteonecrosis or bone cell death, associated with
 CC traumatic injury or nontraumatic necrosis associated with Gaucher's
 CC disease, sickle cell anaemia, systemic lupus erythematosus, rheumatoid
 CC arthritis, periodontal disease and alopecia. PTH receptor agonists are
 CC useful as therapeutic agents in conditions including fracture repair
 CC (including healing of non-union fractures), osteopenia, including various
 CC forms of osteoporosis. AAU73018-AAU73181 represent parathyroid hormone
 CC and parathyroid hormone related protein (PTH/PTHrP) modulators and
 CC related amino acid sequences of the invention.
 XX
 SQ Sequence 29 AA;

Query Match 100.0%; Score 28; DB 23; Length 29;
 Best Local Similarity 100.0%; Pred. No. 1.8e-20;
 Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LLHNLGKSIQDLRRRFFLHHLIAEIH TA 28
 |||||

Db 1 LLHNLGKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 5

AAR14728

ID AAR14728 standard; Protein; 28 AA.

XX

AC AAR14728;

XX

DT 24-JAN-1992 (first entry)

XX

DE Human parathyroid hormone inhibitor (3).

XX

KW PTH; hPTH; hypercalcaemia; osteoporosis.

XX

OS Synthetic.

XX

PN WO9116341-A.

XX

PD 31-OCT-1991.

XX

PF 19-APR-1990; 90WO-JP00513.

XX

PR 12-APR-1990; 90JP-0096951.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Nakao K;

XX

DR WPI; 1991-339751/46.

XX

PT Peptide derivs. having human parathyroid hormone inhibitory

PT activity - useful for treating hypercalcaemia and osteoporosis

XX

PS Example 3; Page 11; 19pp; Japanese.

XX

CC The peptides represented in AAR14726-29 have strong inhibitory
CC activity against human parathyroid hormone (hPTH), greater than that
CC of conventional inhibitors, and are useful in treatment of metabolic
CC calcium or phosphate disorders such as hypercalcaemia and
CC osteoporosis, and of diseases involving PTH or PTH-related peptide.

XX

SQ Sequence 28 AA;

Query Match 92.9%; Score 26; DB 12; Length 28;

Best Local Similarity 100.0%; Pred. No. 1.5e-18;

Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28

|||||

Db 3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 6

AAR14727

ID AAR14727 standard; Protein; 30 AA.

XX

AC AAR14727;
 XX
 DT 24-JAN-1992 (first entry)
 XX
 DE Human parathyroid hormone inhibitor (2).
 XX
 KW PTH; hPTH; hypercalcaemia; osteoporosis.
 XX
 OS Synthetic.
 XX
 PN WO9116341-A.
 XX
 PD 31-OCT-1991.
 XX
 PF 19-APR-1990; 90WO-JP00513.
 XX
 PR 12-APR-1990; 90JP-0096951.
 XX
 PA (MITU) MITSUBISHI KASEI CORP.
 XX
 PI Kanmera T, Mori A, Nakao Y, Nakao K;
 XX
 DR WPI; 1991-339751/46.
 XX
 PT Peptide derivs. having human parathyroid hormone inhibitory
 PT activity - useful for treating hypercalcaemia and osteoporosis
 XX
 PS Example 2; Page 10; 19pp; Japanese.
 XX
 CC The peptides represented in AAR14726-29 have strong inhibitory
 CC activity against human parathyroid hormone (hPTH), greater than that
 CC of conventional inhibitors, and are useful in treatment of metabolic
 CC calcium or phosphate disorders such as hypercalcaemia and
 CC osteoporosis, and of diseases involving PTH or PTH-related peptide.
 XX
 SQ Sequence 30 AA;

Query Match 92.9%; Score 26; DB 12; Length 30;
 Best Local Similarity 100.0%; Pred. No. 1.6e-18;
 Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
 ||||||||||||||||||
 Db 5 HNLGKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 7

AAR14726

ID AAR14726 standard; peptide; 32 AA.
 XX
 AC AAR14726;
 XX
 DT 24-JAN-1992 (first entry)
 XX
 DE Human parathyroid hormone inhibitor (1).
 XX
 KW PTH; hPTH; hypercalcaemia; osteoporosis.

XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Peptide 5..32
 FT /note= "claim 1, page 14"
 XX
 PN WO9116341-A.
 XX
 PD 31-OCT-1991.
 XX
 PF 19-APR-1990; 90WO-JP00513.
 XX
 PR 12-APR-1990; 90JP-0096951.
 XX
 PA (MITU) MITSUBISHI KASEI CORP.
 XX
 PI Kanmera T, Mori A, Nakao Y, Nakao K;
 XX
 DR WPI; 1991-339751/46.
 XX
 PT Peptide derivs. having human parathyroid hormone inhibitory
 PT activity - useful for treating hypercalcaemia and osteoporosis
 XX
 PS Example 1; Page 8; 19pp; Japanese.
 XX
 CC The peptides represented in AAR14726-29 have strong inhibitory
 CC activity against human parathyroid hormone (hPTH), greater than that
 CC of conventional inhibitors, and are useful in treatment of metabolic
 CC calcium or phosphate disorders such as hypercalcaemia and
 CC osteoporosis, and of diseases involving PTH or PTH-related peptide.
 XX
 SQ Sequence 32 AA;

Query Match 92.9%; Score 26; DB 12; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.7e-18;
 Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 7 HNLGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 8
 AAR14729
 ID AAR14729 standard; Protein; 36 AA.
 XX
 AC AAR14729;
 XX
 DT 24-JAN-1992 (first entry)
 XX
 DE Human parathyroid hormone inhibitor (4).
 XX
 KW PTH; hPTH; hypercalcaemia; osteoporosis.
 XX
 OS Synthetic.
 XX

PN WO9116341-A.
XX
PD 31-OCT-1991.
XX
PF 19-APR-1990; 90WO-JP00513.
XX
PR 12-APR-1990; 90JP-0096951.
XX
PA (MITU) MITSUBISHI KASEI CORP.
XX
PI Kanmera T, Mori A, Nakao Y, Nakao K;
XX
DR WPI; 1991-339751/46.
XX
PT Peptide derivs. having human parathyroid hormone inhibitory
PT activity - useful for treating hypercalcaemia and osteoporosis
XX
PS Example 4; Page 11; 19pp; Japanese.
XX
CC The peptides represented in AAR14726-29 have strong inhibitory
CC activity against human parathyroid hormone (hPTH), greater than that
CC of conventional inhibitors, and are useful in treatment of metabolic
CC calcium or phosphate disorders such as hypercalcaemia and
CC osteoporosis, and of diseases involving PTH or PTH-related peptide.
XX
SQ Sequence 36 AA;

Query Match 92.9%; Score 26; DB 12; Length 36;
Best Local Similarity 100.0%; Pred. No. 1.9e-18;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 7 HNLGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 9

AAR27976

ID AAR27976 standard; Protein; 28 AA.

XX

AC AAR27976;

XX

DT 25-MAR-2003 (updated)

DT 26-NOV-1992 (first entry)

XX

DE (Leu11) hHCF (7-34) analogue.

XX

KW humoral hypercalcaemic factor; hypercalcaemia; osteoporosis;

KW hyperparathyroidism; tumour overproduction; assay;

KW hypercalcaemic crisis; renal failure; hypertension; inflammation;

KW allergy; hyperactive lymphocytes.

XX

OS Synthetic.

XX

PN US5114843-A.

XX

PD 19-MAY-1992.

XX
PF 25-FEB-1991; 91US-0662340.
XX
PR 09-MAY-1988; 88US-0191513.
PR 21-APR-1989; 89US-0341530.
PR 25-FEB-1991; 91US-0662340.
XX
PA (MERI) MERCK & CO INC.
XX
PI Caulfield MP, Mckee RL, Nutt RF, Rosenblatt M;
XX
DR WPI; 1992-192175/23.
XX
PT Peptide analogues of humoral hypercalcaemic factor - useful for
PT treating hypercalcaemia or osteoporosis, hyperparathyroidism or
PT disease associated with tumour over prodn. of hHCF
XX
PS Disclosure; Column 2; 5pp; English.
XX
CC This sequence represents one of several novel peptide analogues of
CC humoral hypercalcaemic factor (hHCF), as found in the disclosure.
CC The peptides are antagonists of hHCF, and may be used to treat
CC osteoporosis, hypercalcaemia, hyperparathyroidism, eg. expressed as a
CC hypercalcaemic crisis, renal failure, or hypertension, and disease
CC states produced by a tumour or other cell overproducing a peptide
CC hormone-like molecule eg. the hHCF of malignancy. They may also be
CC used to treat immune diseases involving inflammation, an allergic
CC response or hyperactive lymphocytes. A further use may be in an assay
CC of natural hHCF levels. The peptides have high binding affinity for
CC their receptors, while not stimulating the production of second
CC messenger molecules with concurrent physiological response.
CC NOTE: In the specification Ile14 is quoted as being substituted by
CC other amino acids, however Ile occurs only at position 15 in the
CC full sequence disclosed for hHCF.
CC (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ Sequence 28 AA;

Query Match 85.7%; Score 24; DB 13; Length 28;
Best Local Similarity 100.0%; Pred. No. 1.4e-16;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 LGKSIQDLRRRFFLHHLIAEIHSTA 28
|||||
Db 5 LGKSIQDLRRRFFLHHLIAEIHSTA 28

RESULT 10
AAR27069
ID AAR27069 standard; peptide; 28 AA.
XX
AC AAR27069;
XX
DT 03-MAR-1993 (first entry)
XX
DE [Leu11]hHCF[7-34] contg. lactam bridge.
XX

KW Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;
KW osteoporosis; parathyroidism; inflammation; immune; stable.

XX
OS Homo sapiens.

FH	Key	Location/Qualifiers
----	-----	---------------------

FT	Modified-site	7
----	---------------	---

```
FT          /note= "site of lactam bridge to Asp 11"
```

FT	Modified-site	11
----	---------------	----

```
FT      /note= "site of lactam bridge to Lys 7"
```

FT	Misc-difference	5
----	-----------------	---

```
FT          /note= "Lys -> Leu mutation"
```

XX

PN US5149779-A.

XX

PD 22-SEP-1992.

XX

PF 26-JUL-1990; 90US-0557828.

XX

PR 26-JUL-1990; 90US-0557828.

XX

PA (MERI) MERCK & CO INC.

XX

PI Chorev M, Roubini E;

XX

DR WPI; 1992-340294/41.

XX

PT New peptide derivs. are humoral hypercalcaemic factor antagonists

PT - useful for treating osteoporosis, hypercalcaemia,

PT parathyroidism, immune disorders, inflammation, etc.

XX

PS Disclosure; Page 3; 6pp; English.

XX

CC The peptide shows a truncated version of the first 34 N-terminal
CC residues of human humoral hypercalcaemic factor having an Lys->Leu
CC mutation at position 5 i.e. [Leu11]hHCF[7-34]. A lactam bridge is
CC present between Lys7 and Asp11. The peptide fragment contains a
CC region specific for binding to its cell surface receptor but does
CC not stimulate the prodn. of second messenger molecules once bound.
CC The analogue of hHCF is an HCF antagonist useful for treating e.g.
CC osteoporosis, hypercalcaemia, parathyroidism, immune disorders or
CC inflammation. The lactam bridge confers rigidity to that region
CC of the peptide and enhances the helical nature and metabolic
CC stability of the peptide analogue.

CC See also AAR27063-73.

XX

SQ Sequence 28 AA;

Query Match 85.7%; Score 24; DB 13; Length 28;

Best Local Similarity 100.0%; Pred. No. 1.4e-16;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28

Db 5 LGKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 11

AAR14940

ID AAR14940 standard; Protein; 30 AA.

XX

AC AAR14940;

XX

DT 02-JAN-1992 (first entry)

XX

DE Parathyroid hormone antagonist (cpd.18).

XX

KW PTH; parathyroid hormone related peptide; PTHrP;

KW hyperparathyroidism; renal osteodystrophy.

XX

OS Synthetic.

XX

PN EP451867-A.

XX

PD 16-OCT-1991.

XX

PF 12-APR-1991; 91EP-0105881.

XX

PR 12-APR-1990; 90JP-0096952.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX

DR WPI; 1991-304900/42.

XX

PT New parathyroid hormone antagonists - for treating dysbolism

PT associated with calcium or phosphoric acid e.g. hypercalcaemia

PT and osteoporosis, etc.

XX

PS Disclosure; Page 8; 26pp; English.

XX

CC The sequence is an example of a generic formula representing

CC parathyroid hormone related peptide (PTHrP) derivs. which have potent

CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.

CC The derivs. can be used as therapeutic agents for treating dysbolism

CC associated with calcium or phosphoric acid such as hypercalcemia,

CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other

CC renal diseases involving PTH or PTHrP.

CC Specific examples are represented in AAR14916-30.

XX

SQ Sequence 30 AA;

Query Match 85.7%; Score 24; DB 12; Length 30;

Best Local Similarity 100.0%; Pred. No. 1.5e-16;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28

|||||

Db 7 LGKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 12

AAR14931

ID AAR14931 standard; Protein; 32 AA.
 XX
 AC AAR14931;
 XX
 DT 02-JAN-1992 (first entry)
 XX
 DE Parathyroid hormone antagonist (cpd.1).
 XX
 KW PTH; parathyroid hormone related peptide; PTHrP;
 KW hyperparathyroidism; renal osteodystrophy.
 XX
 OS Synthetic.
 XX
 PN EP451867-A.
 XX
 PD 16-OCT-1991.
 XX
 PF 12-APR-1991; 91EP-0105881.
 XX
 PR 12-APR-1990; 90JP-0096952.
 XX
 PA (MITU) MITSUBISHI KASEI CORP.
 XX
 PI Kanmera T, Mori A, Nakao Y, Minegishi T;
 XX
 DR WPI; 1991-304900/42.
 XX
 PT New parathyroid hormone antagonists - for treating dysbolism
 PT associated with calcium or phosphoric acid e.g. hypercalcaemia
 PT and osteoporosis, etc.
 XX
 PS Disclosure; Page 7; 26pp; English.
 XX
 CC The sequence is an example of a generic formula representing
 CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
 CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
 CC The derivs. can be used as therapeutic agents for treating dysbolism
 CC associated with calcium or phosphoric acid such as hypercalcemia,
 CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
 CC renal diseases involving PTH or PTHrP.
 CC PTH antagonism of the derivs. was determined on the basis of the
 CC output of cAMP, using cultured osteoblast MC3T3-E1. Assay of cAMP
 CC was performed using a commercially available cAMP-radioimmunoassay kit.
 CC Cpd.1 showed 50% inhibition at a concn. of below about 1/300 of
 CC [Tyr34]-hPTH (3-34)-NH2 and at a concn. of about 1/29 of hPTHrP
 CC (3-34)-NH2.
 CC Specific examples are represented in AAR14916-30.
 XX
 SQ Sequence 32 AA;

Query Match 85.7%; Score 24; DB 12; Length 32;
 Best Local Similarity 100.0%; Pred. No. 1.6e-16;
 Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 9 LGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 13

AAR14932

ID AAR14932 standard; Protein; 32 AA.

XX

AC AAR14932;

XX

DT 02-JAN-1992 (first entry)

XX

DE Parathyroid hormone antagonist (cpd.2).

XX

KW PTH; parathyroid hormone related peptide; PTHrP;

KW hyperparathyroidism; renal osteodystrophy.

XX

OS Synthetic.

XX

PN EP451867-A.

XX

PD 16-OCT-1991.

XX

PF 12-APR-1991; 91EP-0105881.

XX

PR 12-APR-1990; 90JP-0096952.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX

DR WPI; 1991-304900/42.

XX

PT New parathyroid hormone antagonists - for treating dysbolism

PT associated with calcium or phosphoric acid e.g. hypercalcaemia

PT and osteoporosis, etc.

XX

PS Disclosure; Page 7; 26pp; English.

XX

CC The sequence is an example of a generic formula representing

CC parathyroid hormone related peptide (PTHrP) derivs. which have potent

CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.

CC The derivs. can be used as therapeutic agents for treating dysbolism

CC associated with calcium or phosphoric acid such as hypercalcemia,

CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other

CC renal diseases involving PTH or PTHrP.

CC Specific examples are represented in AAR14916-30.

XX

SQ Sequence 32 AA;

Query Match 85.7%; Score 24; DB 12; Length 32;

Best Local Similarity 100.0%; Pred. No. 1.6e-16;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28

|||||

Db 9 LGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 14

AAR27974

ID AAR27974 standard; Protein; 28 AA.

XX

AC AAR27974;

XX

DT 25-MAR-2003 (updated)

DT 26-NOV-1992 (first entry)

XX

DE (Leu23) hHCF (7-34) generic analogue.

XX

KW humoral hypercalcaemic factor; hypercalcaemia; osteoporosis;

KW hyperparathyroidism; tumour overproduction; assay;

KW hypercalcaemic crisis; renal failure; hypertension; inflammation;

KW allergy; hyperactive lymphocytes.

XX

OS Synthetic.

XX

PN US5114843-A.

XX

PD 19-MAY-1992.

XX

PF 25-FEB-1991; 91US-0662340.

XX

PR 09-MAY-1988; 88US-0191513.

PR 21-APR-1989; 89US-0341530.

PR 25-FEB-1991; 91US-0662340.

XX

PA (MERI) MERCK & CO INC.

XX

PI Caulfield MP, Mckee RL, Nutt RF, Rosenblatt M;

XX

DR WPI; 1992-192175/23.

XX

PT Peptide analogues of humoral hypercalcaemic factor - useful for

PT treating hypercalcaemia or osteoporosis, hyperparathyroidism or

PT disease associated with tumour over prodn. of hHCF

XX

PS Disclosure; Column 2; 5pp; English.

XX

CC This sequence represents one of several novel peptide analogues of
CC humoral hypercalcaemic factor (hHCF), as found in the disclosure.

CC The peptides are antagonists of hHCF, and may be used to treat
CC osteoporosis, hypercalcaemia, hyperparathyroidism, eg. expressed as a
CC hypercalcaemic crisis, renal failure, or hypertension, and disease
CC states produced by a tumour or other cell overproducing a peptide
CC hormone-like molecule eg. the hHCF of malignancy. They may also be
CC used to treat immune diseases involving inflammation, an allergic
CC response or hyperactive lymphocytes. A further use may be in an assay
CC of natural hHCF levels. The peptides have high binding affinity for
CC their receptors, while not stimulating the production of second
CC messenger molecules with concurrent physiological response.

CC NOTE: In the specification Ile14 is quoted as being substituted by
CC other amino acids, however Ile occurs only at position 15 in the
CC full sequence disclosed for hHCF.

CC (Updated on 25-MAR-2003 to correct PF field.)

XX

SQ Sequence 28 AA;

Query Match 82.1%; Score 23; DB 13; Length 28;
Best Local Similarity 100.0%; Pred. No. 1.3e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHNTA 28
|||
DB 6 GKSIQDLRRRFFLHHLIAEIHNTA 28

RESULT 15

AAR21479

ID AAR21479 standard; Protein; 28 AA.

XX

AC AAR21479;

XX

DT 05-JUN-1992 (first entry)

XX

DE [Lys11/13 (epsilon-(N-biotin/biotinyl-aminoacyl))]-hHCF (7-34)NH₂.

XX

KW Lysine modification; probes; parathyroid hormone; osteoporosis;

KW biotinylation; humoral hypercalcaemic factor (HCF); antagonist.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 5

FT /label= OTHER

FT /note= "OTHER= epsilon-amino gp. has biotin or

FT biotinyl-aminoacyl"

FT Modified-site 7

FT /label= OTHER

FT /note= "OTHER= epsilon-amino gp. has biotin or

FT biotinyl-aminoacyl"

XX

PN US5087561-A.

XX

PD 11-FEB-1992.

XX

PF 28-JUN-1990; 90US-0545256.

XX

PR 28-JUN-1990; 90US-0545256.

XX

PA (MERI) MERCK & CO INC.

XX

PI Rosenblatt M, Chorev M, Roubini E, Nutt RF, Duong LT;

XX

DR WPI; 1992-072189/09.

XX

PT New biotin-modified humoral hypercalcaemic factor antagonist -

PT useful in treatment and diagnosis of e.g. tumours,

PT hypercalcaemia, osteoporosis and hyperparathyroidism

XX

PS Disclosure; Page 2; 6pp; English.

XX

CC The peptide was prepd. by solid phase synthesis using a 4-methyl

CC benzhydrylamine.HCl resin. The substn. of the epsilon-NH2 of Lys11
 CC or Lys13 was carried out by incorporation of N-alpha-Boc-Lys
 CC (epsilon-Fmoc)-OH in position 11 or 13, deprotonation and mod-
 CC ification of the free epsilon-NH2 in Lys11 or 13. The peptide was
 CC cleaved from the resin and purified. Note that only Lys11 or Lys13
 CC are modified, but not both. The peptide has high binding affinity
 CC for hypercalcaemic factor cell surface receptors while not stimulating
 CC the prodn. of second messengers. The peptide can be used for treating
 CC e.g. osteoporosis, hypercalcaemia, hyperparathyroidism and related
 CC aspects i.e. hypercalcaemic crisis, renal failure and hypertension
 CC tumours. The peptide may be used to treat immune diseases in which
 CC the diseased state is manifested by inflammation, an allergic response
 CC or hyperactive lymphocytes. Fragments of the peptide contg. the
 CC receptor binding site can be used as inhibitors or blocking agents.
 CC The peptides can also be used as probes to detect and facilitate
 CC purification of parathyroid hormone receptor, and in vitro to measure
 CC the concn. of naturally occurring HCF.
 CC See also AAR21478-87 and AAR21488-97 (see US5087562).

XX
 SQ Sequence 28 AA;

Query Match 82.1%; Score 23; DB 13; Length 28;
 Best Local Similarity 100.0%; Pred. No. 1.3e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 6 GKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 16

AAR21489

ID AAR21489 standard; Peptide; 28 AA.

XX

AC AAR21489;

XX

DT 05-JUN-1992 (first entry)

XX

DE Desamino Lys13 (epsilon amino N,N-diisobutyl or 3-phenyl
 DE propanoyl) hHCF (7-34)NH2.

XX

KW Humoral hypercalcaemic factor (HCF); antagonist; tumours;
 KW hypercalcaemia; osteoporosis; hyperparathyroidism.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 7

FT /label= OTHER

FT /note= "OTHER= epsilon amino-N,N-diisobutyl
 FT or 3-phenyl propanoyl."

XX

PN US5087562-A.

XX

PD 11-FEB-1992.

XX

PF 25-APR-1990; 90US-0514633.

XX
PR 25-APR-1990; 90US-0514633.
XX
PA (MERI) MERCK & CO INC.
XX
PI Rosenblatt M, Roubini E, Chorev M, Nutt RF;
XX
DR WPI; 1992-072190/09.
XX
PT New di:isobutyl or phenyl:propanoyl modified HCF antagonist -
PT useful in treatment and diagnosis of e.g. tumours,
PT hypercalcaemia, osteoporosis and hyperparathyroidism
XX
PS Disclosure; Page 1; 6pp; English.
XX
CC The peptide was synthesised by a solid phase method using
CC a 4-methyl-benzhydrylamine.HCl resin. The substn. of the epsilon-
CC NH2 of Lys13 was carried out by incorporation of N-alpha-Boc-Lys-
CC (epsilon-Fmoc)-OH in position 13 and epsilon-amino Fmoc deprotonation
CC and modification of the free epsilon-NH2 in Lys13. The peptide was
CC cleaved from the resin, extracted and purified. Note that the
CC peptide is desamino i.e. there is no amino gp. on the N-terminus.
CC The peptides have high binding affinity for HCF cell surface receptors
CC while not stimulating the prodn. of second messenger molecules.
CC The peptide can be used for treating e.g. osteoporosis, hypercalcaemia,
CC hyperparathyroidism and related aspects i.e. hypercalcaemic crisis,
CC renal failure and hypertension tumours. The peptide may be used to
CC treat immune diseases in which the diseased state is manifested by
CC inflammation, an allergic response or hyperactive lymphocytes.
CC Fragments of the peptide contg. the receptor binding site can be used
CC as inhibitors or blocking agents. The peptides can also be used as
CC probes to detect and facilitate purification of parathyroid hormone
CC receptor, and in vitro to measure the concn. of naturally occurring HCF.
CC See also AAR21488-97 and AAR21478-87 (see US5087561).
XX
SQ Sequence 28 AA;

Query Match 82.1%; Score 23; DB 13; Length 28;
Best Local Similarity 100.0%; Pred. No. 1.3e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||||
Db 6 GKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 17

AAB91126

ID AAB91126 standard; Peptide; 28 AA.

XX

AC AAB91126;

XX

DT 22-JUN-2001 (first entry)

XX

DE Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:300.

XX

KW Protection; endogenous therapeutic peptide; peptidase; conjugation;

KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US13576.
XX
PR 17-MAY-1999; 99US-0134406.
PR 10-SEP-1999; 99US-0153406.
PR 15-OCT-1999; 99US-0159783.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity
PT -
XX
PS Disclosure; Page 292; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity
CC in vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention.
XX
SQ Sequence 28 AA;

Query Match 82.1%; Score 23; DB 22; Length 28;
Best Local Similarity 100.0%; Pred. No. 1.3e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 6 GKSIQDLRRRFFLHHLIAEIHTA 28

RESULT 18

AAU73080

ID AAU73080 standard; Peptide; 28 AA.

XX

AC AAU73080;

XX

DT 12-MAR-2002 (first entry)

XX

DE Parathyroid hormone PTH/PTHrP modulating domain #62.

XX

KW Human; parathyroid hormone; PTH; parathyroid hormone-related protein;
KW PTHrP; bone resorption inhibitor; osteoprotegrin; OPG; OPG-L antibody;
KW calcitonin; bisphosphonate; oestrogen; oestrogen receptor; tibolone;
KW osteopenia; hyperthyroidism; hypercalcaemia; tumour metastasis; bone;
KW breast cancer; prostate cancer; cachexia; anorexia; osteoporosis;
KW Paget's disease; osteomyelitis; osteonecrosis; bone cell death;
KW Gaucher's disease; sickle cell anaemia; systemic lupus erythematosus;
KW rheumatoid arthritis; periodontal disease; alopecia; fracture repair;
KW immunoglobulin G; IgG.

XX

OS Homo sapiens.

XX

PN WO200181415-A2.

XX

PD 01-NOV-2001.

XX

PF 27-APR-2001; 2001WO-US13528.

XX

PR 27-APR-2000; 2000US-200053P.

PR 28-JUN-2000; 2000US-214860P.

PR 06-FEB-2001; 2001US-266673P.

PR 26-APR-2001; 2001US-0843221.

XX

PA (AMGE-) AMGEN INC.

XX

PI Kostenuik P, Liu C, Lacey DL;

XX

DR WPI; 2002-066435/09.

XX

PT Composition, useful for treating osteopenia, comprises parathyroid
PT hormone and parathyroid hormone-related protein receptor modulators -

XX

PS Disclosure; Page 28; 107pp; English.

XX

CC The invention relates to a composition (I) comprising modulators of
CC parathyroid hormone (PTH) and parathyroid hormone-related protein (PTHrP)
CC which comprise a PTH/PTHrP modulating domain and a vehicle. (I)
CC comprising PTH agonist optionally with a bone resorption inhibitor, such
CC as osteoprotegrin (OPG), OPG-L antibody, calcitonin, bisphosphonates,
CC oestrogens, oestrogen receptor modulators and tibolone is useful for
CC treating osteopenia. (I) is useful for therapeutic and prophylactic
CC purposes. Antagonists of PTH receptor are useful in treating primary and
CC secondary hyperthyroidism, hypercalcaemia, tumour metastases,
CC particularly breast and prostate cancer, cachexia and anorexia,
CC osteopenia, including various forms of osteoporosis, Paget's disease of
CC bone, osteomyelitis, osteonecrosis or bone cell death, associated with
CC traumatic injury or nontraumatic necrosis associated with Gaucher's

PT New parathyroid hormone antagonists - for treating dysbolism
PT associated with calcium or phosphoric acid e.g. hypercalcaemia
PT and osteoporosis, etc.

XX
PS Disclosure; Page 7; 26pp; English.

XX
CC The sequence is an example of a generic formula representing
CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
CC The derivs. can be used as therapeutic agents for treating dysbolism
CC associated with calcium or phosphoric acid such as hypercalcemia,
CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
CC renal diseases involving PTH or PTHrP.
CC Specific examples are represented in AAR14916-30.

XX
SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
|||
Db 8 GKSIQDLRRRFFLHHLIAEIH TA 30

RESULT 22
AAR14934

ID AAR14934 standard; Protein; 30 AA.

XX
AC AAR14934;

XX
DT 02-JAN-1992 (first entry)

XX
DE Parathyroid hormone antagonist (cpd.15).

XX
KW PTH; parathyroid hormone related peptide; PTHrP;
KW hyperparathyroidism; renal osteodystrophy.

XX
OS Synthetic.

XX
PN EP451867-A.

XX
PD 16-OCT-1991.

XX
PF 12-APR-1991; 91EP-0105881.

XX
PR 12-APR-1990; 90JP-0096952.

XX
PA (MITU) MITSUBISHI KASEI CORP.

XX
PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX
DR WPI; 1991-304900/42.

XX
PT New parathyroid hormone antagonists - for treating dysbolism
PT associated with calcium or phosphoric acid e.g. hypercalcaemia

PT and osteoporosis, etc.
 XX
 PS Disclosure; Page 8; 26pp; English.
 XX
 CC The sequence is an example of a generic formula representing
 CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
 CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
 CC The derivs. can be used as therapeutic agents for treating dysbolism
 CC associated with calcium or phosphoric acid such as hypercalcemia,
 CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
 CC renal diseases involving PTH or PTHrP.
 CC Specific examples are represented in AAR14916-30.
 XX
 SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
 Best Local Similarity 100.0%; Pred. No. 1.4e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
 |||||
 Db 8 GKSIQDLRRRFFLHHLIAEIH TA 30

RESULT 23

AAR14935

ID AAR14935 standard; Protein; 30 AA.
 XX
 AC AAR14935;
 XX
 DT 02-JAN-1992 (first entry)
 XX
 DE Parathyroid hormone antagonist (cpd.9).
 XX
 KW PTH; parathyroid hormone related peptide; PTHrP;
 KW hyperparathyroidism; renal osteodystrophy.
 XX
 OS Synthetic.
 XX
 PN EP451867-A.
 XX
 PD 16-OCT-1991.
 XX
 PF 12-APR-1991; 91EP-0105881.
 XX
 PR 12-APR-1990; 90JP-0096952.
 XX
 PA (MITU) MITSUBISHI KASEI CORP.
 XX
 PI Kanmera T, Mori A, Nakao Y, Minegishi T;
 XX
 DR WPI; 1991-304900/42.
 XX
 PT New parathyroid hormone antagonists - for treating dysbolism
 PT associated with calcium or phosphoric acid e.g. hypercalcaemia
 PT and osteoporosis, etc.
 XX

PS Disclosure; Page 7; 26pp; English.

XX

CC The sequence is an example of a generic formula representing
CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
CC The derivs. can be used as therapeutic agents for treating dysbolism
CC associated with calcium or phosphoric acid such as hypercalcemia,
CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
CC renal diseases involving PTH or PTHrP.
CC Specific examples are represented in AAR14916-30.

XX

SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28

|||||

Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 24

AAR14937

ID AAR14937 standard; Protein; 30 AA.

XX

AC AAR14937;

XX

DT 02-JAN-1992 (first entry)

XX

DE Parathyroid hormone antagonist (cpd.14).

XX

KW PTH; parathyroid hormone related peptide; PTHrP;

KW hyperparathyroidism; renal osteodystrophy.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 3

FT /label= norleucine

XX

PN EP451867-A.

XX

PD 16-OCT-1991.

XX

PF 12-APR-1991; 91EP-0105881.

XX

PR 12-APR-1990; 90JP-0096952.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX

DR WPI; 1991-304900/42.

XX

PT New parathyroid hormone antagonists - for treating dysbolism

PT associated with calcium or phosphoric acid e.g. hypercalcaemia

PT and osteoporosis, etc.

XX

PS Disclosure; Page 7; 26pp; English.

XX

CC The sequence is an example of a generic formula representing
CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
CC The derivs. can be used as therapeutic agents for treating dysbolism
CC associated with calcium or phosphoric acid such as hypercalcemia,
CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
CC renal diseases involving PTH or PTHrP.
CC Specific examples are represented in AAR14916-30.

XX

SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
*p2000X |||||
Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

hu8 immun

RESULT 25

AAR14938

ID AAR14938 standard; Protein; 30 AA.

XX

AC AAR14938;

XX

DT 02-JAN-1992 (first entry)

XX

DE Parathyroid hormone antagonist (cpd.16).

XX

KW PTH; parathyroid hormone related peptide; PTHrP;

KW hyperparathyroidism; renal osteodystrophy.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 4

FT /label= norleucine

XX

PN EP451867-A.

XX

PD 16-OCT-1991.

XX

PF 12-APR-1991; 91EP-0105881.

XX

PR 12-APR-1990; 90JP-0096952.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX

DR WPI; 1991-304900/42.

XX

PT New parathyroid hormone antagonists - for treating dysbolism
PT associated with calcium or phosphoric acid e.g. hypercalcaemia
PT and osteoporosis, etc.
XX
PS Disclosure; Page 8; 26pp; English.
XX
CC The sequence is an example of a generic formula representing
CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
CC The derivs. can be used as therapeutic agents for treating dysbolism
CC associated with calcium or phosphoric acid such as hypercalcemia,
CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
CC renal diseases involving PTH or PTHrP.
CC Specific examples are represented in AAR14916-30.
XX
SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
|||||
Db 8 GKSIQDLRRRFFLHHLIAEIH TA 30

RESULT 26
AAR14939

ID AAR14939 standard; Protein; 30 AA.
XX
AC AAR14939;
XX
DT 02-JAN-1992 (first entry)
XX
DE Parathyroid hormone antogonist (cpd.17).
XX
KW PTH; parathyroid hormone related peptide; PTHrP;
KW hyperparathyroidism; renal osteodystrophy.
XX
OS Synthetic.
XX
PN EP451867-A.
XX
PD 16-OCT-1991.
XX
PF 12-APR-1991; 91EP-0105881.
XX
PR 12-APR-1990; 90JP-0096952.
XX
PA (MITU) MITSUBISHI KASEI CORP.
XX
PI Kanmera T, Mori A, Nakao Y, Minegishi T;
XX
DR WPI; 1991-304900/42.
XX
PT New parathyroid hormone antagonists - for treating dysbolism
PT associated with calcium or phosphoric acid e.g. hypercalcaemia

PT and osteoporosis, etc.
 XX
 PS Disclosure; Page 8; 26pp; English.
 XX
 CC The sequence is an example of a generic formula representing
 CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
 CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
 CC The derivs. can be used as therapeutic agents for treating dysbolism
 CC associated with calcium or phosphoric acid such as hypercalcemia,
 CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
 CC renal diseases involving PTH or PTHrP.
 CC Specific examples are represented in AAR14916-30.
 XX
 SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
 Best Local Similarity 100.0%; Pred. No. 1.4e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHNTA 28
 |||||
 Db 8 GKSIQDLRRRFFLHHLIAEIHNTA 30

RESULT 27

AAR14943

ID AAR14943 standard; Protein; 30 AA.
 XX
 AC AAR14943;
 XX
 DT 02-JAN-1992 (first entry)
 XX
 DE Parathyroid hormone antagonist (cpd.21).
 XX
 KW PTH; parathyroid hormone related peptide; PTHrP;
 KW hyperparathyroidism; renal osteodystrophy.
 XX
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Modified-site 1
 FT /label= acetyl-isoleucine
 XX
 PN EP451867-A.
 XX
 PD 16-OCT-1991.
 XX
 PF 12-APR-1991; 91EP-0105881.
 XX
 PR 12-APR-1990; 90JP-0096952.
 XX
 PA (MITU) MITSUBISHI KASEI CORP.
 XX
 PI Kanmera T, Mori A, Nakao Y, Minegishi T;
 XX
 DR WPI; 1991-304900/42.
 XX

PT New parathyroid hormone antagonists - for treating dysbolism
PT associated with calcium or phosphoric acid e.g. hypercalcaemia
PT and osteoporosis, etc.
XX
PS Disclosure; Page 8; 26pp; English.
XX
CC The sequence is an example of a generic formula representing
CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
CC The derivs. can be used as therapeutic agents for treating dysbolism
CC associated with calcium or phosphoric acid such as hypercalcemia,
CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
CC renal diseases involving PTH or PTHrP.
CC Specific examples are represented in AAR14916-30.
XX
SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHNTA 28
|||||
Db 8 GKSIQDLRRRFFLHHLIAEIHNTA 30

RESULT 28

AAR14944

ID AAR14944 standard; Protein; 30 AA.

XX

AC AAR14944;

XX

DT 02-JAN-1992 (first entry)

XX

DE Parathyroid hormone antagonist (cpd.22).

XX

KW PTH; parathyroid hormone related peptide; PTHrP;

KW hyperparathyroidism; renal osteodystrophy.

XX

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 1

FT /label= myristoyl-isoleucine

XX

PN EP451867-A.

XX

PD 16-OCT-1991.

XX

PF 12-APR-1991; 91EP-0105881.

XX

PR 12-APR-1990; 90JP-0096952.

XX

PA (MITU) MITSUBISHI KASEI CORP.

XX

PI Kanmera T, Mori A, Nakao Y, Minegishi T;

XX

DR WPI; 1991-304900/42.
 XX
 PT New parathyroid hormone antagonists - for treating dysbolism
 PT associated with calcium or phosphoric acid e.g. hypercalcaemia
 PT and osteoporosis, etc.
 XX
 PS Disclosure; Page 8; 26pp; English.
 XX
 CC The sequence is an example of a generic formula representing
 CC parathyroid hormone related peptide (PTHrP) derivs. which have potent
 CC antagonistic activity against parathyroid hormone (PTH) or PTHrP.
 CC The derivs. can be used as therapeutic agents for treating dysbolism
 CC associated with calcium or phosphoric acid such as hypercalcemia,
 CC osteoporosis, hyperparathyroidism, renal osteodystrophy and other
 CC renal diseases involving PTH or PTHrP.
 CC Specific examples are represented in AAR14916-30.
 XX
 SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 12; Length 30;
 Best Local Similarity 100.0%; Pred. No. 1.4e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIH TA 28
 |||||
 Db 8 GKSIQDLRRRFFLHHLIAEIH TA 30

RESULT 29

AAE23753

ID AAE23753 standard; peptide; 30 AA.

XX

AC AAE23753;

XX

DT 10-SEP-2002 (first entry)

XX

DE Human parathyroid related peptide, PTHrP (5-34).

XX

KW Human parathyroid hormone; hPTH; PTH-related peptide; PTHrP; eczema;
 KW hyperproliferative skin disorder; psoriasis; ichthyosis; skin cancer;
 KW acne; actinic keratosis; alopecia; gene therapy.

XX

OS Homo sapiens.

XX

PN WO200228420-A2.

XX

PD 11-APR-2002.

XX

PF 05-OCT-2001; 2001WO-US31082.

XX

PR 06-OCT-2000; 2000US-238134P.

XX

PA (HOLI/) HOLICK M F.

XX

PI Holick MF;

XX

DR WPI; 2002-452304/48.

XX
PT Regulating mammalian skin or hair cell proliferation and
PT differentiation by administering nucleic acids encoding peptides
PT derived from N-terminal region of human parathyroid hormone (hPTH) or
PT hPTH-related protein -
XX
PS Claim 35; Fig 43; 56pp; English.
XX
CC The invention relates to a method for regulating proliferation or
CC enhancing differentiation of mammalian skin or hair cell. The method
CC involves administering nucleic acids encoding peptides derived from
CC N-terminal region of human parathyroid hormone (hPTH) or hPTH-related
CC peptide (PTHrP). The method is used for inhibiting hyperproliferative
CC skin disorders such as psoriasis, ichthyosis, eczema, acne, actinic
CC keratosis, skin cancer, for inhibiting hair growth or preventing hair
CC regrowth. It is useful for stimulating cell growth, rejuvenating aged
CC skin, preventing skin wrinkles, treating skin wrinkles, enhancing wound
CC healing, stimulating hair growth, maintaining hair growth, treating or
CC preventing female or male pattern baldness, for treating chemotherapy
CC induced alopecia and also for stimulating epidermal cell growth or
CC hair follicle cell growth. The method is also used in gene therapy.
CC The present sequence is hPTHrP peptide.
XX
SQ Sequence 30 AA;

Query Match 82.1%; Score 23; DB 23; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.4e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 30

AAE23743

ID AAE23743 standard; peptide; 32 AA.

XX

AC AAE23743;

XX

DT 10-SEP-2002 (first entry)

XX

DE Human parathyroid related peptide, PTHrP (5-36).

XX

KW Human parathyroid hormone; hPTH; PTH-related peptide; PTHrP; eczema;
KW hyperproliferative skin disorder; psoriasis; ichthyosis; skin cancer;
KW acne; actinic keratosis; alopecia; gene therapy.

XX

OS Homo sapiens.

XX

PN WO200228420-A2.

XX

PD 11-APR-2002.

XX

PF 05-OCT-2001; 2001WO-US31082.

XX

PR 06-OCT-2000; 2000US-238134P.

XX
PA (HOLI/) HOLICK M F.
XX
PI Holick MF;
XX
DR WPI; 2002-452304/48.
DR N-PSDB; AAD37997.
XX
PT Regulating mammalian skin or hair cell proliferation and
PT differentiation by administering nucleic acids encoding peptides
PT derived from N-terminal region of human parathyroid hormone (hPTH) or
PT hPTH-related protein -
XX
PS Claim 35; Fig 41; 56pp; English.
XX
CC The invention relates to a method for regulating proliferation or
CC enhancing differentiation of mammalian skin or hair cell. The method
CC involves administering nucleic acids encoding peptides derived from
CC N-terminal region of human parathyroid hormone (hPTH) or hPTH-related
CC peptide (PTHrP). The method is used for inhibiting hyperproliferative
CC skin disorders such as psoriasis, ichthyosis, eczema, acne, actinic
CC keratosis, skin cancer, for inhibiting hair growth or preventing hair
CC regrowth. It is useful for stimulating cell growth, rejuvenating aged
CC skin, preventing skin wrinkles, treating skin wrinkles, enhancing wound
CC healing, stimulating hair growth, maintaining hair growth, treating or
CC preventing female or male pattern baldness, for treating chemotherapy
CC induced alopecia and also for stimulating epidermal cell growth or
CC hair follicle cell growth. The method is also used in gene therapy.
CC The present sequence is hPTHrP peptide.
XX
SQ Sequence 32 AA;

Query Match 82.1%; Score 23; DB 23; Length 32;
Best Local Similarity 100.0%; Pred. No. 1.5e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 31

AAB91122

ID AAB91122 standard; Peptide; 33 AA.

XX

AC AAB91122;

XX

DT 22-JUN-2001 (first entry)

XX

DE Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:296.

XX

KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX

OS Homo sapiens.

OS Synthetic.

XX
 PN WO200069900-A2.
 XX
 PD 23-NOV-2000.
 XX
 PF 17-MAY-2000; 2000WO-US13576.
 XX
 PR 17-MAY-1999; 99US-0134406.
 PR 10-SEP-1999; 99US-0153406.
 PR 15-OCT-1999; 99US-0159783.
 XX
 PA (CONJ-) CONJUCHEM INC.
 XX
 PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
 XX
 DR WPI; 2001-112059/12.
 XX
 PT Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity
 PT -
 XX
 PS Disclosure; Page 290; 733pp; English.
 XX
 CC The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity
 CC in vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention.
 XX
 SQ Sequence 33 AA;

Query Match 82.1%; Score 23; DB 22; Length 33;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
 |||||
 Db 11 GKSIQDLRRRFFLHHLIAEIH TA 33

RESULT 32
 AAR27012
 ID AAR27012 standard; peptide; 34 AA.
 XX
 AC AAR27012;

XX
 DT 20-MAY-1998 (first entry)
 XX
 DE Antihuman PTHrP MAb.
 XX
 KW Antihuman parathyroid hormone-related protein; monoclonal antibody;
 KW variable region; rodent/human chimeric MAb; constant region; PTHrP.
 XX
 OS Synthetic.
 XX
 PN JP04228089-A.
 XX
 PD 18-AUG-1992.
 XX
 PF 15-MAY-1991; 91JP-0110565.
 XX
 PR 15-MAY-1990; 90JP-0124581.
 XX
 PA (KANF) KANEKA CORP.
 XX
 DR WPI; 1992-320987/39.
 XX
 PT Treatment and preventive agent for hypercalcaemia - contg. one of
 PT anti-human para-thyroid-hormone-related protein monoclonal antibody,
 PT a rodent or chimera monoclonal antibody, fused gene and cell
 PT line, etc.
 XX
 PS Disclosure; Page 15; 18pp; Japanese.
 XX
 CC The sequence given is a fragment of the antihuman parathyroid hormone-
 CC related protein monoclonal antibody (antihuman PTHrP MAb). This
 CC fragment was contained within the variable region of the antihuman
 CC PTHrP MAb. The MAb was used as an active component in an agent to
 CC treat and prevent hypercalcaemia. The agent may further comprise a
 CC rodent/human chimeric MAb which has a rodent variable region and a
 CC human constant region and recognises human PTHrP.
 XX
 SQ Sequence 34 AA;

 Query Match 82.1%; Score 23; DB 13; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 33

AAR27063

ID AAR27063 standard; peptide; 34 AA.

XX

AC AAR27063;

XX

DT 03-MAR-1993 (first entry)

XX

DE N-terminus of human humoral hypercalcaemic factor.

XX
KW hHCF; mutants; lactam bridge; antagonists; osteoporosis;
KW parathyroidism; inflammation; immune; stable.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 10
FT /note= "possible mutation site"
FT Misc-difference 11
FT /note= "possible mutation site"
FT Misc-difference 12
FT /note= "possible mutation site"
FT Modified-site 13
FT /note= "may form a lactam bridge with Asp 17"
FT Misc-difference 14
FT /note= "possible mutation site"
FT Modified-site 17
FT /note= "may form a lactam bridge with Lys 13"
FT Misc-difference 23
FT /note= "possible mutation site"
FT Misc-difference 34
FT /note= "possible mutation site"
XX
PN US5149779-A.
XX
PD 22-SEP-1992.
XX
PF 26-JUL-1990; 90US-0557828.
XX
PR 26-JUL-1990; 90US-0557828.
XX
PA (MERI) MERCK & CO INC.
XX
PI Chorev M, Roubini E;
XX
DR WPI; 1992-340294/41.
XX
PT New peptide derivs. are humoral hypercalcaemic factor antagonists
PT - useful for treating osteoporosis, hypercalcaemia,
PT parathyroidism, immune disorders, inflammation, etc.
XX
PS Disclosure; Page 2; 6pp; English.
XX
CC The peptide shows the first 34 N-terminal residues of human humoral
CC hypercalcaemic factor (hHCF). The peptide may be mutated at one or
CC more of the positions indicated in the features table and may be
CC truncated by 7,8,9,10 or 11 residues from the N-terminus and a
CC lactam bridge inserted between Lys and Asp residues positioned five
CC residues (inclusive) apart. The mutated peptide analogues of hHCF
CC have high affinity for their specific cell surface receptor but do
CC not stimulate prodn. of second messenger mols. once bound. They are
CC HCF antagonists which are useful for treating e.g. osteoporosis,
CC hypercalcaemia; parathyroidism, immune disorders or inflammation.
CC The lactam bridge confers rigidity to that region of the peptide and
CC enhances the helical nature and metabolic stability of the peptide
CC analogues. See also AAR27064-73.

XX
SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 13; Length 34;
Best Local Similarity 100.0%; Pred. No. 1.5e-15;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 34
AAW18683
ID AAW18683 standard; peptide; 34 AA.
XX
AC AAW18683;
XX
DT 29-JUL-1997 (first entry)
XX
DE Human parathyroid hormone-related protein analogue [Cha7]hPTHrP(1-34)NH2.
XX
KW Osteoporosis; agonist; PTHrP; human; anti-resorptive therapy;
KW bone fracture.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 7
FT /label= OTHER
FT /note= "Cyclohexylalanine (Cha)"
FT Modified-site 34
FT /note= "In amide form"
XX
PN WO9702834-A1.
XX
PD 30-JAN-1997.
XX
PF 03-JUL-1996; 96WO-US11292.
XX
PR 29-MAR-1996; 96US-0626186.
PR 13-JUL-1995; 95US-0001105.
PR 06-SEP-1995; 95US-0003305.
XX
PA (BIOM-) BIOMEASURE INC.
XX
PI Dong ZX;
XX
DR WPI; 1997-118819/11.
XX
PT New variants of human parathyroid hormone 1-34 peptide - which
PT stimulate bone growth and are used for treatment of osteoporosis and
PT bone fracture
XX
PS Disclosure; Page -; 33pp; English.
XX

CC The present sequence is a specific example of a human parathyroid
 CC hormone-related protein (hPTHrP) analogue from fragment 1-34 in which
 CC at least one of the amino acid residues at positions 5, 7, 8, 11, 15,
 CC 18, 22, 23, 24, 27, 28, 30 and 31 is cyclohexylalanine (Cha). In this
 CC example the Leu residue at position 7 has been substituted by Cha. The
 CC hPTHrP analogues stimulate bone growth and so are useful in human or
 CC veterinary medicine for treatment of osteoporosis and bone fracture,
 CC optionally in conjunction with anti-resorptive therapy (bisphosphonates
 CC and calcitonin).
 CC N.B. The present sequence does not appear in the specification. It
 CC corresponds to the known hPTHrP 1-34 fragment with the modifications
 CC as stated in the disclosure.

XX

SQ Sequence 34 AA;

Query Match 82.1%; Score 23; D 18; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHNTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHNTA 34

RESULT 35

AAW18685

ID AAW18685 standard; peptide; 34 AA.

XX

AC AAW18685;

XX

DT 29-JUL-1997 (first entry)

XX

DE hPTHrP analogue [Cha11]hPTHrP(1-34)NH2.

XX

KW Osteoporosis; agonist; PTHrP; human; anti-resorptive therapy;

KW bone fracture; parathyroid hormone-related protein.

XX

OS Homo sapiens.

OS Synthetic.

XX

FH Key Location/Qualifiers

FT Modified-site 11

FT /label= OTHER

FT /note= "Cyclohexylalanine (Cha)"

FT Modified-site 34

FT /note= "In amide form"

XX

PN WO9702834-A1.

XX

PD 30-JAN-1997.

XX

PF 03-JUL-1996; 96WO-US11292.

XX

PR 29-MAR-1996; 96US-0626186.

PR 13-JUL-1995; 95US-0001105.

PR 06-SEP-1995; 95US-0003305.

XX

PA (BIOM-) BIOMEASURE INC.
 XX
 PI Dong ZX;
 XX
 DR WPI; 1997-118819/11.
 XX
 PT New variants of human parathyroid hormone 1-34 peptide - which
 PT stimulate bone growth and are used for treatment of osteoporosis and
 PT bone fracture
 XX
 PS Disclosure; Page -; 33pp; English.
 XX
 CC The present sequence is a specific example of a human parathyroid
 CC hormone-related protein (hPTHrP) analogue from fragment 1-34 in which at
 CC least one of the amino acid residues at positions 5, 7, 8, 11, 15,
 CC 18, 22, 23, 24, 27, 28, 30 and 31 is cyclohexylalanine (Cha). In this
 CC example the Lys at position 11 in the wild-type has been substituted by
 CC Cha. The hPTHrP analogues stimulate bone growth and so are useful in
 CC human or veterinary medicine for treatment of osteoporosis and bone
 CC fracture, optionally in conjunction with anti-resorptive therapy
 CC (bisphosphonates and calcitonin).
 CC N.B. The present sequence does not appear in the specification. It
 CC corresponds to the known hPTHrP 1-34 fragment with the modifications
 CC as stated in the disclosure.
 XX
 SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 18; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 36

AAW61661

ID AAW61661 standard; peptide; 34 AA.

XX

AC AAW61661;

XX

DT 25-MAR-2003 (updated)

DT 16-NOV-1998 (first entry)

XX

DE Human parathyroid hormone fragment.

XX

KW parathyroid hormone; bone; osteoporosis; osteopenia.

XX

OS Homo sapiens.

XX

PN US5798225-A.

XX

PD 25-AUG-1998.

XX

PF 24-MAY-1995; 95US-0449500.

XX

PR 18-JAN-1994; 94US-0184328.
 PR 14-JUL-1992; 92US-0915247.
 PR 24-MAY-1995; 95US-0449500.
 XX
 PA (SYNT) SYNTEX USA INC.
 XX
 PI Bach CT, Ho TH, Krstenansky JL, Nestor JJ, Vickery BH;
 XX
 DR WPI; 1998-480381/41.
 XX
 PT Recombinant production of modified parathyroid hormone or related
 PT peptide - having bone mass restoring activity which differs from
 PT naturally occurring PTH or PTHrP by changes comprising substitutions
 PT at one or more of positions 22-31
 XX
 PS Example 1; Column 3/4; 65pp; English.
 XX
 CC The parathyroid hormone (PTH) analogues AAW61658-W61732 differ from
 CC naturally occurring PTH by changes comprising substitutions at on or
 CC more of positions 22-31. The bone mass restoring activity of the PTH
 CC analogues can be used to treat or prevent conditions characterised by
 CC a decrease in bone mass, e.g. osteoporosis or osteopenia.
 CC (Updated on 25-MAR-2003 to correct PF field.)
 XX
 SQ Sequence 34 AA;

 Query Match 82.1%; Score 23; DB 19; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 37
 AAW65978
 ID AAW65978 standard; peptide; 34 AA.
 XX
 AC AAW65978;
 XX
 DT 25-MAR-2003 (updated)
 DT 13-NOV-1998 (first entry)
 XX
 DE Human parathyroid hormone related peptide fragment (residues 1-34).
 XX
 KW Parathyroid hormone; PTH; parathyroid hormone related peptide; PTHrp;
 KW bone mass; trabecular bone; bone resorption; osteoporosis.
 XX
 OS Homo sapiens.
 XX
 PN US5807823-A.
 XX
 PD 15-SEP-1998.
 XX
 PF 24-MAY-1995; 95US-0449317.
 XX

PR 18-JAN-1994; 94US-0184328.
 PR 14-JUL-1992; 92US-0915247.
 PR 24-MAY-1995; 95US-0449317.
 XX
 PA (SYNT) SYNTEX USA INC.
 XX
 PI Krstenansky JL, Nestor JJ, Vickery BH;
 XX
 DR WPI; 1998-520168/44.
 XX
 PT Treatment of osteoporosis - by administration of modified
 PT parathyroid hormone peptides
 XX
 PS Disclosure; Columns 3-4; 71pp; English.
 XX
 CC The invention relates to treatment of mammalian conditions characterised
 CC by decreases in bone mass. The treatment comprises administering a
 CC modified parathyroid hormone (PTH) or parathyroid hormone related peptide
 CC (PTHrp) that differs from naturally occurring PTH or PTHrp by one or more
 CC amino acid substitutions in positions 22-31. PTH and PTHrp are useful for
 CC treatment of disorders characterised by decreasing bone mass, especially
 CC osteoporosis. Use of PTH or PTHrp gives a sustainable increase in
 CC trabecular bone by a different method to the prior art, which slowed down
 CC bone resorption. The present sequence represents the N-terminal fragment
 CC of human PTHrp (residues 1-34).
 CC (Updated on 25-MAR-2003 to correct PF field.)
 XX
 SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 19; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 38
 AAW57605
 ID AAW57605 standard; peptide; 34 AA.
 XX
 AC AAW57605;
 XX
 DT 03-SEP-1998 (first entry)
 XX
 DE Peptide SEQ ID NO:75 from WO9813388.
 XX
 KW Chimeric; antibody; human parathormone related peptide; hPTRP; mouse;
 KW L chain; H chain; hypercalcaemia; cancer; malignant lymphoma; CDR;
 KW hypophosphaemia; pathogen; vitamin D resistance; V region; C region;
 KW humanised.
 XX
 OS Unidentified.
 XX
 PN WO9813388-A1.
 XX

PD 02-APR-1998.
 XX
 PF 24-SEP-1997; 97WO-JP03382.
 XX
 PR 24-JUL-1997; 97JP-0214168.
 PR 26-SEP-1996; 96JP-0255196.
 XX
 PA (CHUS) CHUGAI SEIYAKU KK.
 XX
 PI Sato K, Wakahara Y, Yabuta N;
 XX
 DR WPI; 1998-230640/20.
 XX
 PT New chimeric antibodies against human parathormone related
 PT peptide(s) - useful for, e.g. treatment of hypercalcaemia and other
 PT disorders caused by malignant neoplasm(s)
 XX
 PS Disclosure; Page 138; 182pp; Japanese.
 XX
 CC New antibodies have been developed which are specific for human
 CC parathormone related peptides (hPTRP). The antibodies comprise chimeric
 CC L and/or H chains, where the C region is of human and L region of
 CC mouse, origin. The present sequence represents a peptide from
 CC the present invention. Host cells, transformed with vectors
 CC containing DNA encoding antibodies of the invention, can be used to
 CC produce the antibodies. The antibodies may be used to treat
 CC hypercalcaemia, especially that due to a malignancy, e.g. cancers of
 CC pancreas, lung, throat, larynx, tongue, gum, oesophagus, stomach, liver,
 CC breast, kidney, bladder, womb or prostate or malignant lymphoma. They
 CC may also be used for treatment of hypophosphaemia such as that due to
 CC pathogens or to vitamin D resistance.
 XX
 SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 19; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 GKSIQDLRRRFFLHHLIAEIH TA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIH TA 34

RESULT 39

AAW42617

ID AAW42617 standard; peptide; 34 AA.

XX

AC AAW42617;

XX

DT 24-JUN-1998 (first entry)

XX

DE Parathyroid hormone-related peptide N-terminal fragment.

XX

KW Parathyroid hormone; PTH; osteoporosis; peptide synthesis; analogue;
 KW parathyroid hormone-related hormone; PTH-rP; alpha-helix; amphipathic.

XX

OS Mammalia.

XX
 PN EP822200-A1.
 XX
 PD 04-FEB-1998.
 XX
 PF 23-JUL-1997; 97EP-0112595.
 XX
 PR 30-JUL-1996; 96US-0023322.
 XX
 PA (HOFF) HOFFMANN LA ROCHE & CO AG F.
 XX
 PI Arzeno HB;
 XX
 DR WPI; 1998-102869/10.
 XX
 PT Chemical synthesis of parathyroid hormone analogues - by solution or
 PT solid-phase methods, useful for treating osteoporosis
 XX
 PS Disclosure; Page 3; 69pp; English.
 XX
 CC This sequence is shown in the specification. The invention relates to
 CC a process for synthesising a polypeptide analogue of parathyroid hormone
 CC (PTH) or PTH-related peptide (PTH-rP) in which amino acids 22-31 are:
 CC Glu-Leu-Leu-Glu-Lys-Leu-Leu-Xaa1-Lys-Leu (I); Glu-Leu-Leu-Glu-Arg-Leu-
 CC Leu-Xaa2-Arg-Leu (II); Ala-Leu-Ala-Glu-Ala-Leu-Ala-Glu-Ala-Leu (III);
 CC Ser-Leu-Leu-Ser-Ser-Leu-Leu-Ser-Ser-Leu (IV); Ala-Phe-Tyr-Asp-Lys-Val-
 CC Ala-Glu-Lys-Leu (V); Xaa3-Xaa4-Leu-Xaa3-Xaa5-Leu-Xaa6-Xaa7-Xaa8-Xaa6
 CC (VI); or Xaa3-Xaa4-Leu-Xaa3-Arg-Leu-Leu-Xaa9-Arg-Leu (VII), Xaa1 = Glu
 CC or Arg; Xaa2 = Glu, Lys or 'lysine-(OCCH2PEGX)'; Xaa3 = Glu, Glu(OMe),
 CC His or Phe; Xaa4 = Leu or Phe; Xaa5 = Lys or His; Xaa6 = Leu or Ile;
 CC Xaa7 = Ala, Arg or Glu; Xaa8 = Lys or Glu; and Xaa9 = Glu, Lys or '
 CC Lys(COCH2PEGX)'. The process comprises independently synthesising
 CC precursor peptide fragments of the polypeptide by solution or solid-
 CC phase techniques, coupling (condensing) the fragments together, and
 CC removing any protecting groups. The peptides can be used for treating
 CC osteoporosis.
 XX
 SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 19; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 40
 AAY50594
 ID AAY50594 standard; peptide; 34 AA.
 XX
 AC AAY50594;
 XX
 DT 09-FEB-2000 (first entry)
 XX
 DE Resin bound cyclic peptide 27.

XX
 KW Cyclic peptide; resin bound; parathyroid hormone; osteopathic; disease;
 KW hypotensive; PTH receptor; treatment; hyper-calcemia; hypo-calcemia;
 KW osteoporosis; osteopenia; hyper-parathyroidism; hypo-parathyroidism;
 KW Cushing's syndrome; renal failure; hypertension; bone fracture repair.
 XX
 OS Synthetic.
 XX
 PN WO9952933-A1.
 XX
 PD 21-OCT-1999.
 XX
 PF 15-APR-1999; 99WO-US08435.
 XX
 PR 15-APR-1998; 98US-0081897.
 XX
 PA (RHON) RHONE-POULENC RORER PHARM INC.
 XX
 PI Sledeski AW, Mencil JJ;
 XX
 DR WPI; 1999-633822/54.
 XX
 PT Convergent synthesis of peptides for treating e.g. bone disorders -
 XX
 PS Disclosure; Page 70; 85pp; English.
 XX
 CC This invention describes a novel method for the preparation of peptides
 CC (II) that contain both cyclic and linear peptide fragments comprises
 CC sequential reaction of a resin-bound linear fragment with the cyclic
 CC fragment in N-protected form and optionally other linear fragments. The
 CC products of the invention have osteopathic and hypotensive activity.
 CC (II) bind to hPTH receptors and act as agonists or antagonists of hPTH.
 CC The method is particularly used to prepare cyclic peptide analogs of
 CC parathyroid hormone (PTH) or PTH-related peptides which are useful for
 CC treating diseases that respond to treatment with agents that bind to PTH
 CC receptors (with or without activation of adenylyl cyclase activity),
 CC e.g. hyper- or hypo-calcemia, osteoporosis, osteopenia, hyper- or hypo-
 CC parathyroidism, Cushing's syndrome, renal failure and hypertension, also
 CC for promoting repair of bone fractures. Separate synthesis of the cyclic
 CC fragment allows convergent synthesis of resin-bound (II), with better
 CC yields and higher throughput. The difficulties associated with
 CC preparation of the bridged fragment are confined to a small peptide
 CC which can be purified before reaction with the resin-bound component.
 CC AAY50568-Y50614 represent the peptide fragments described in the method
 CC of the invention.
 XX
 SQ Sequence 34 AA;

Query Match 82.1%; Score 23; DB 20; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1.5e-15;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

Search completed: January 14, 2004, 10:34:31
Job time : 28.7788 secs

OM protein - protein search, using sw model

Run on: January 14, 2004, 10:28:59 ; Search time 9.50779 Seconds
(without alignments)
124.604 Million cell updates/sec

Title: US-09-843-221A-169
Perfect score: 28
Sequence: 1 LLHNLGKSIQDLRRRFFLHHLIAEIH TA 28

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 328717 seqs, 42310858 residues

Word size : 0

Total number of hits satisfying chosen parameters: 25778

Minimum DB seq length: 28
Maximum DB seq length: 40

Post-processing: Listing first 1000 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result		%					
No.	Score	Query	Match	Length	DB	ID	Description
1	26	92.9	32	1	US-07-778-926-3	Sequence 3, Appli	
2	26	92.9	33	1	US-07-778-926-7	Sequence 7, Appli	
3	26	92.9	34	1	US-07-778-926-11	Sequence 11, Appl	
4	26	92.9	35	1	US-07-778-926-15	Sequence 15, Appl	
5	26	92.9	36	1	US-07-778-926-4	Sequence 4, Appli	
6	26	92.9	36	1	US-07-778-926-19	Sequence 19, Appl	
7	26	92.9	37	1	US-07-778-926-8	Sequence 8, Appli	
8	26	92.9	38	1	US-07-778-926-12	Sequence 12, Appl	
9	26	92.9	39	1	US-07-778-926-16	Sequence 16, Appl	
10	26	92.9	40	1	US-07-778-926-20	Sequence 20, Appl	
11	25	89.3	28	1	US-07-778-926-2	Sequence 2, Appli	

12	25	89.3	29	1	US-07-778-926-6	Sequence 6, Appli
13	25	89.3	30	1	US-07-778-926-10	Sequence 10, Appl
14	25	89.3	31	1	US-07-778-926-14	Sequence 14, Appl
15	25	89.3	32	1	US-07-778-926-18	Sequence 18, Appl
16	24	85.7	30	1	US-08-305-799A-10	Sequence 10, Appl
17	24	85.7	32	1	US-08-305-799A-1	Sequence 1, Appli
18	24	85.7	32	1	US-08-305-799A-2	Sequence 2, Appli
19	23	82.1	29	1	US-08-305-799A-5	Sequence 5, Appli
20	23	82.1	30	1	US-08-305-799A-3	Sequence 3, Appli
21	23	82.1	30	1	US-08-305-799A-4	Sequence 4, Appli
22	23	82.1	30	1	US-08-305-799A-6	Sequence 6, Appli
23	23	82.1	30	1	US-08-305-799A-7	Sequence 7, Appli
24	23	82.1	30	1	US-08-305-799A-8	Sequence 8, Appli
25	23	82.1	30	1	US-08-305-799A-9	Sequence 9, Appli
26	23	82.1	34	1	US-07-969-453-1	Sequence 1, Appli
27	23	82.1	34	1	US-07-915-247A-4	Sequence 4, Appli
28	23	82.1	34	1	US-08-443-863-4	Sequence 4, Appli
29	23	82.1	34	1	US-08-448-070-4	Sequence 4, Appli
30	23	82.1	34	1	US-08-449-500-4	Sequence 4, Appli
31	23	82.1	34	1	US-08-449-317A-4	Sequence 4, Appli
32	23	82.1	34	2	US-08-477-022-4	Sequence 4, Appli
33	23	82.1	34	2	US-08-449-447-4	Sequence 4, Appli
34	23	82.1	34	2	US-08-184-328-4	Sequence 4, Appli
35	23	82.1	34	2	US-08-521-097-4	Sequence 4, Appli
36	23	82.1	34	4	US-09-228-990-2	Sequence 2, Appli
37	23	82.1	34	4	US-09-442-989-27	Sequence 27, Appl
38	23	82.1	36	3	US-08-903-497A-2	Sequence 2, Appli
39	23	82.1	36	4	US-09-635-076-2	Sequence 2, Appli
40	23	82.1	36	4	US-09-449-632-23	Sequence 23, Appl
41	19	67.9	34	3	US-08-903-497A-7	Sequence 7, Appli
42	19	67.9	34	4	US-09-635-076-7	Sequence 7, Appli
43	14	50.0	30	1	US-08-305-799A-12	Sequence 12, Appl
44	14	50.0	34	1	US-08-488-105-20	Sequence 20, Appl
45	14	50.0	34	1	US-08-488-105-21	Sequence 21, Appl
46	14	50.0	34	1	US-08-488-105-22	Sequence 22, Appl
47	13	46.4	29	1	US-07-684-391B-4	Sequence 4, Appli
48	13	46.4	29	1	US-08-305-799A-16	Sequence 16, Appl
49	13	46.4	30	1	US-07-684-391B-3	Sequence 3, Appli
50	13	46.4	30	1	US-07-684-391B-5	Sequence 5, Appli
51	13	46.4	30	1	US-08-305-799A-11	Sequence 11, Appl
52	13	46.4	30	1	US-08-305-799A-15	Sequence 15, Appl
53	13	46.4	30	1	US-08-305-799A-17	Sequence 17, Appl
54	13	46.4	31	1	US-07-684-391B-2	Sequence 2, Appli
55	13	46.4	31	1	US-07-684-391B-6	Sequence 6, Appli
56	13	46.4	31	1	US-08-305-799A-14	Sequence 14, Appl
57	13	46.4	31	1	US-08-305-799A-18	Sequence 18, Appl
58	13	46.4	32	1	US-07-684-391B-1	Sequence 1, Appli
59	13	46.4	32	1	US-08-305-799A-13	Sequence 13, Appl
60	13	46.4	34	1	US-08-449-500-64	Sequence 64, Appl
61	13	46.4	34	1	US-08-449-317A-64	Sequence 64, Appl
62	13	46.4	34	2	US-08-477-022-64	Sequence 64, Appl
63	13	46.4	34	2	US-08-449-447-64	Sequence 64, Appl
64	13	46.4	34	2	US-08-184-328-64	Sequence 64, Appl
65	13	46.4	34	2	US-08-521-097-64	Sequence 64, Appl
66	13	46.4	34	3	US-08-903-497A-6	Sequence 6, Appli
67	13	46.4	34	4	US-09-635-076-6	Sequence 6, Appli
68	12	42.9	28	4	US-09-228-990-77	Sequence 77, Appl

69	12	42.9	28	4	US-09-442-989-23	Sequence 23, Appl
70	12	42.9	34	4	US-09-228-990-71	Sequence 71, Appl
71	12	42.9	34	4	US-09-442-989-20	Sequence 20, Appl
72	11	39.3	34	1	US-07-915-247A-14	Sequence 14, Appl
73	11	39.3	34	1	US-08-443-863-14	Sequence 14, Appl
74	11	39.3	34	1	US-08-448-070-14	Sequence 14, Appl
75	11	39.3	34	1	US-08-449-500-14	Sequence 14, Appl
76	11	39.3	34	1	US-08-449-317A-14	Sequence 14, Appl
77	11	39.3	34	2	US-08-477-022-14	Sequence 14, Appl
78	11	39.3	34	2	US-08-449-447-14	Sequence 14, Appl
79	11	39.3	34	2	US-08-184-328-14	Sequence 14, Appl
80	11	39.3	34	2	US-08-521-097-14	Sequence 14, Appl
81	10	35.7	28	1	US-08-449-500-81	Sequence 81, Appl
82	10	35.7	28	1	US-08-449-317A-81	Sequence 81, Appl
83	10	35.7	28	2	US-08-477-022-81	Sequence 81, Appl
84	10	35.7	28	2	US-08-449-447-81	Sequence 81, Appl
85	10	35.7	28	2	US-08-184-328-81	Sequence 81, Appl
86	10	35.7	28	2	US-08-521-097-81	Sequence 81, Appl
87	10	35.7	32	1	US-08-449-500-56	Sequence 56, Appl
88	10	35.7	32	1	US-08-449-500-80	Sequence 80, Appl
89	10	35.7	32	1	US-08-449-317A-56	Sequence 56, Appl
90	10	35.7	32	1	US-08-449-317A-80	Sequence 80, Appl
91	10	35.7	32	2	US-08-477-022-56	Sequence 56, Appl
92	10	35.7	32	2	US-08-477-022-80	Sequence 80, Appl
93	10	35.7	32	2	US-08-449-447-56	Sequence 56, Appl
94	10	35.7	32	2	US-08-449-447-80	Sequence 80, Appl
95	10	35.7	32	2	US-08-184-328-56	Sequence 56, Appl
96	10	35.7	32	2	US-08-184-328-80	Sequence 80, Appl
97	10	35.7	32	2	US-08-521-097-56	Sequence 56, Appl
98	10	35.7	32	2	US-08-521-097-80	Sequence 80, Appl
99	10	35.7	33	1	US-08-449-500-55	Sequence 55, Appl
100	10	35.7	33	1	US-08-449-500-63	Sequence 63, Appl
101	10	35.7	33	1	US-08-449-317A-55	Sequence 55, Appl
102	10	35.7	33	1	US-08-449-317A-63	Sequence 63, Appl
103	10	35.7	33	2	US-08-477-022-55	Sequence 55, Appl
104	10	35.7	33	2	US-08-477-022-63	Sequence 63, Appl
105	10	35.7	33	2	US-08-449-447-55	Sequence 55, Appl
106	10	35.7	33	2	US-08-449-447-63	Sequence 63, Appl
107	10	35.7	33	2	US-08-184-328-55	Sequence 55, Appl
108	10	35.7	33	2	US-08-184-328-63	Sequence 63, Appl
109	10	35.7	33	2	US-08-521-097-55	Sequence 55, Appl
110	10	35.7	33	2	US-08-521-097-63	Sequence 63, Appl
111	10	35.7	34	1	US-07-915-247A-5	Sequence 5, Appli
112	10	35.7	34	1	US-07-915-247A-6	Sequence 6, Appli
113	10	35.7	34	1	US-07-915-247A-7	Sequence 7, Appli
114	10	35.7	34	1	US-07-915-247A-8	Sequence 8, Appli
115	10	35.7	34	1	US-07-915-247A-9	Sequence 9, Appli
116	10	35.7	34	1	US-07-915-247A-11	Sequence 11, Appl
117	10	35.7	34	1	US-07-915-247A-15	Sequence 15, Appl
118	10	35.7	34	1	US-07-915-247A-20	Sequence 20, Appl
119	10	35.7	34	1	US-07-915-247A-21	Sequence 21, Appl
120	10	35.7	34	1	US-07-915-247A-22	Sequence 22, Appl
121	10	35.7	34	1	US-08-443-863-5	Sequence 5, Appli
122	10	35.7	34	1	US-08-443-863-6	Sequence 6, Appli
123	10	35.7	34	1	US-08-443-863-7	Sequence 7, Appli
124	10	35.7	34	1	US-08-443-863-8	Sequence 8, Appli
125	10	35.7	34	1	US-08-443-863-9	Sequence 9, Appli

126	10	35.7	34	1	US-08-443-863-11	Sequence 11, Appl
127	10	35.7	34	1	US-08-443-863-15	Sequence 15, Appl
128	10	35.7	34	1	US-08-443-863-20	Sequence 20, Appl
129	10	35.7	34	1	US-08-443-863-21	Sequence 21, Appl
130	10	35.7	34	1	US-08-443-863-22	Sequence 22, Appl
131	10	35.7	34	1	US-08-448-070-5	Sequence 5, Appli
132	10	35.7	34	1	US-08-448-070-6	Sequence 6, Appli
133	10	35.7	34	1	US-08-448-070-7	Sequence 7, Appli
134	10	35.7	34	1	US-08-448-070-8	Sequence 8, Appli
135	10	35.7	34	1	US-08-448-070-9	Sequence 9, Appli
136	10	35.7	34	1	US-08-448-070-11	Sequence 11, Appl
137	10	35.7	34	1	US-08-448-070-15	Sequence 15, Appl
138	10	35.7	34	1	US-08-448-070-20	Sequence 20, Appl
139	10	35.7	34	1	US-08-448-070-21	Sequence 21, Appl
140	10	35.7	34	1	US-08-448-070-22	Sequence 22, Appl
141	10	35.7	34	1	US-08-449-500-5	Sequence 5, Appli
142	10	35.7	34	1	US-08-449-500-6	Sequence 6, Appli
143	10	35.7	34	1	US-08-449-500-7	Sequence 7, Appli
144	10	35.7	34	1	US-08-449-500-8	Sequence 8, Appli
145	10	35.7	34	1	US-08-449-500-9	Sequence 9, Appli
146	10	35.7	34	1	US-08-449-500-11	Sequence 11, Appl
147	10	35.7	34	1	US-08-449-500-15	Sequence 15, Appl
148	10	35.7	34	1	US-08-449-500-20	Sequence 20, Appl
149	10	35.7	34	1	US-08-449-500-21	Sequence 21, Appl
150	10	35.7	34	1	US-08-449-500-22	Sequence 22, Appl
151	10	35.7	34	1	US-08-449-500-39	Sequence 39, Appl
152	10	35.7	34	1	US-08-449-500-43	Sequence 43, Appl
153	10	35.7	34	1	US-08-449-500-51	Sequence 51, Appl
154	10	35.7	34	1	US-08-449-500-53	Sequence 53, Appl
155	10	35.7	34	1	US-08-449-500-54	Sequence 54, Appl
156	10	35.7	34	1	US-08-449-500-65	Sequence 65, Appl
157	10	35.7	34	1	US-08-449-500-66	Sequence 66, Appl
158	10	35.7	34	1	US-08-449-500-67	Sequence 67, Appl
159	10	35.7	34	1	US-08-449-500-68	Sequence 68, Appl
160	10	35.7	34	1	US-08-449-500-69	Sequence 69, Appl
161	10	35.7	34	1	US-08-449-500-70	Sequence 70, Appl
162	10	35.7	34	1	US-08-449-500-71	Sequence 71, Appl
163	10	35.7	34	1	US-08-449-317A-5	Sequence 5, Appli
164	10	35.7	34	1	US-08-449-317A-6	Sequence 6, Appli
165	10	35.7	34	1	US-08-449-317A-7	Sequence 7, Appli
166	10	35.7	34	1	US-08-449-317A-8	Sequence 8, Appli
167	10	35.7	34	1	US-08-449-317A-9	Sequence 9, Appli
168	10	35.7	34	1	US-08-449-317A-11	Sequence 11, Appl
169	10	35.7	34	1	US-08-449-317A-15	Sequence 15, Appl
170	10	35.7	34	1	US-08-449-317A-20	Sequence 20, Appl
171	10	35.7	34	1	US-08-449-317A-21	Sequence 21, Appl
172	10	35.7	34	1	US-08-449-317A-22	Sequence 22, Appl
173	10	35.7	34	1	US-08-449-317A-39	Sequence 39, Appl
174	10	35.7	34	1	US-08-449-317A-43	Sequence 43, Appl
175	10	35.7	34	1	US-08-449-317A-51	Sequence 51, Appl
176	10	35.7	34	1	US-08-449-317A-53	Sequence 53, Appl
177	10	35.7	34	1	US-08-449-317A-54	Sequence 54, Appl
178	10	35.7	34	1	US-08-449-317A-65	Sequence 65, Appl
179	10	35.7	34	1	US-08-449-317A-66	Sequence 66, Appl
180	10	35.7	34	1	US-08-449-317A-67	Sequence 67, Appl
181	10	35.7	34	1	US-08-449-317A-68	Sequence 68, Appl
182	10	35.7	34	1	US-08-449-317A-69	Sequence 69, Appl

183	10	35.7	34	1	US-08-449-317A-70	Sequence 70, Appl
184	10	35.7	34	1	US-08-449-317A-71	Sequence 71, Appl
185	10	35.7	34	2	US-08-477-022-5	Sequence 5, Appli
186	10	35.7	34	2	US-08-477-022-6	Sequence 6, Appli
187	10	35.7	34	2	US-08-477-022-7	Sequence 7, Appli
188	10	35.7	34	2	US-08-477-022-8	Sequence 8, Appli
189	10	35.7	34	2	US-08-477-022-9	Sequence 9, Appli
190	10	35.7	34	2	US-08-477-022-11	Sequence 11, Appl
191	10	35.7	34	2	US-08-477-022-15	Sequence 15, Appl
192	10	35.7	34	2	US-08-477-022-20	Sequence 20, Appl
193	10	35.7	34	2	US-08-477-022-21	Sequence 21, Appl
194	10	35.7	34	2	US-08-477-022-22	Sequence 22, Appl
195	10	35.7	34	2	US-08-477-022-39	Sequence 39, Appl
196	10	35.7	34	2	US-08-477-022-43	Sequence 43, Appl
197	10	35.7	34	2	US-08-477-022-51	Sequence 51, Appl
198	10	35.7	34	2	US-08-477-022-53	Sequence 53, Appl
199	10	35.7	34	2	US-08-477-022-54	Sequence 54, Appl
200	10	35.7	34	2	US-08-477-022-65	Sequence 65, Appl
201	10	35.7	34	2	US-08-477-022-66	Sequence 66, Appl
202	10	35.7	34	2	US-08-477-022-67	Sequence 67, Appl
203	10	35.7	34	2	US-08-477-022-68	Sequence 68, Appl
204	10	35.7	34	2	US-08-477-022-69	Sequence 69, Appl
205	10	35.7	34	2	US-08-477-022-70	Sequence 70, Appl
206	10	35.7	34	2	US-08-477-022-71	Sequence 71, Appl
207	10	35.7	34	2	US-08-449-447-5	Sequence 5, Appli
208	10	35.7	34	2	US-08-449-447-6	Sequence 6, Appli
209	10	35.7	34	2	US-08-449-447-7	Sequence 7, Appli
210	10	35.7	34	2	US-08-449-447-8	Sequence 8, Appli
211	10	35.7	34	2	US-08-449-447-9	Sequence 9, Appli
212	10	35.7	34	2	US-08-449-447-11	Sequence 11, Appl
213	10	35.7	34	2	US-08-449-447-15	Sequence 15, Appl
214	10	35.7	34	2	US-08-449-447-20	Sequence 20, Appl
215	10	35.7	34	2	US-08-449-447-21	Sequence 21, Appl
216	10	35.7	34	2	US-08-449-447-22	Sequence 22, Appl
217	10	35.7	34	2	US-08-449-447-39	Sequence 39, Appl
218	10	35.7	34	2	US-08-449-447-43	Sequence 43, Appl
219	10	35.7	34	2	US-08-449-447-51	Sequence 51, Appl
220	10	35.7	34	2	US-08-449-447-53	Sequence 53, Appl
221	10	35.7	34	2	US-08-449-447-54	Sequence 54, Appl
222	10	35.7	34	2	US-08-449-447-65	Sequence 65, Appl
223	10	35.7	34	2	US-08-449-447-66	Sequence 66, Appl
224	10	35.7	34	2	US-08-449-447-67	Sequence 67, Appl
225	10	35.7	34	2	US-08-449-447-68	Sequence 68, Appl
226	10	35.7	34	2	US-08-449-447-69	Sequence 69, Appl
227	10	35.7	34	2	US-08-449-447-70	Sequence 70, Appl
228	10	35.7	34	2	US-08-449-447-71	Sequence 71, Appl
229	10	35.7	34	2	US-08-184-328-5	Sequence 5, Appli
230	10	35.7	34	2	US-08-184-328-6	Sequence 6, Appli
231	10	35.7	34	2	US-08-184-328-7	Sequence 7, Appli
232	10	35.7	34	2	US-08-184-328-8	Sequence 8, Appli
233	10	35.7	34	2	US-08-184-328-9	Sequence 9, Appli
234	10	35.7	34	2	US-08-184-328-11	Sequence 11, Appl
235	10	35.7	34	2	US-08-184-328-15	Sequence 15, Appl
236	10	35.7	34	2	US-08-184-328-20	Sequence 20, Appl
237	10	35.7	34	2	US-08-184-328-21	Sequence 21, Appl
238	10	35.7	34	2	US-08-184-328-22	Sequence 22, Appl
239	10	35.7	34	2	US-08-184-328-39	Sequence 39, Appl

240	10	35.7	34	2	US-08-184-328-43	Sequence 43, Appl
241	10	35.7	34	2	US-08-184-328-51	Sequence 51, Appl
242	10	35.7	34	2	US-08-184-328-53	Sequence 53, Appl
243	10	35.7	34	2	US-08-184-328-54	Sequence 54, Appl
244	10	35.7	34	2	US-08-184-328-65	Sequence 65, Appl
245	10	35.7	34	2	US-08-184-328-66	Sequence 66, Appl
246	10	35.7	34	2	US-08-184-328-67	Sequence 67, Appl
247	10	35.7	34	2	US-08-184-328-68	Sequence 68, Appl
248	10	35.7	34	2	US-08-184-328-69	Sequence 69, Appl
249	10	35.7	34	2	US-08-184-328-70	Sequence 70, Appl
250	10	35.7	34	2	US-08-184-328-71	Sequence 71, Appl
251	10	35.7	34	2	US-08-521-097-5	Sequence 5, Appli
252	10	35.7	34	2	US-08-521-097-6	Sequence 6, Appli
253	10	35.7	34	2	US-08-521-097-7	Sequence 7, Appli
254	10	35.7	34	2	US-08-521-097-8	Sequence 8, Appli
255	10	35.7	34	2	US-08-521-097-9	Sequence 9, Appli
256	10	35.7	34	2	US-08-521-097-11	Sequence 11, Appl
257	10	35.7	34	2	US-08-521-097-15	Sequence 15, Appl
258	10	35.7	34	2	US-08-521-097-20	Sequence 20, Appl
259	10	35.7	34	2	US-08-521-097-21	Sequence 21, Appl
260	10	35.7	34	2	US-08-521-097-22	Sequence 22, Appl
261	10	35.7	34	2	US-08-521-097-39	Sequence 39, Appl
262	10	35.7	34	2	US-08-521-097-43	Sequence 43, Appl
263	10	35.7	34	2	US-08-521-097-51	Sequence 51, Appl
264	10	35.7	34	2	US-08-521-097-53	Sequence 53, Appl
265	10	35.7	34	2	US-08-521-097-54	Sequence 54, Appl
266	10	35.7	34	2	US-08-521-097-65	Sequence 65, Appl
267	10	35.7	34	2	US-08-521-097-66	Sequence 66, Appl
268	10	35.7	34	2	US-08-521-097-67	Sequence 67, Appl
269	10	35.7	34	2	US-08-521-097-68	Sequence 68, Appl
270	10	35.7	34	2	US-08-521-097-69	Sequence 69, Appl
271	10	35.7	34	2	US-08-521-097-70	Sequence 70, Appl
272	10	35.7	34	2	US-08-521-097-71	Sequence 71, Appl
273	10	35.7	34	3	US-08-903-497A-5	Sequence 5, Appli
274	10	35.7	34	4	US-09-635-076-5	Sequence 5, Appli
275	10	35.7	35	1	US-07-915-247A-25	Sequence 25, Appl
276	10	35.7	35	1	US-08-443-863-25	Sequence 25, Appl
277	10	35.7	35	1	US-08-448-070-25	Sequence 25, Appl
278	10	35.7	35	1	US-08-449-500-25	Sequence 25, Appl
279	10	35.7	35	1	US-08-449-500-40	Sequence 40, Appl
280	10	35.7	35	1	US-08-449-500-48	Sequence 48, Appl
281	10	35.7	35	1	US-08-449-500-52	Sequence 52, Appl
282	10	35.7	35	1	US-08-449-500-62	Sequence 62, Appl
283	10	35.7	35	1	US-08-449-500-78	Sequence 78, Appl
284	10	35.7	35	1	US-08-449-317A-25	Sequence 25, Appl
285	10	35.7	35	1	US-08-449-317A-40	Sequence 40, Appl
286	10	35.7	35	1	US-08-449-317A-48	Sequence 48, Appl
287	10	35.7	35	1	US-08-449-317A-52	Sequence 52, Appl
288	10	35.7	35	1	US-08-449-317A-62	Sequence 62, Appl
289	10	35.7	35	1	US-08-449-317A-78	Sequence 78, Appl
290	10	35.7	35	2	US-08-477-022-25	Sequence 25, Appl
291	10	35.7	35	2	US-08-477-022-40	Sequence 40, Appl
292	10	35.7	35	2	US-08-477-022-48	Sequence 48, Appl
293	10	35.7	35	2	US-08-477-022-52	Sequence 52, Appl
294	10	35.7	35	2	US-08-477-022-62	Sequence 62, Appl
295	10	35.7	35	2	US-08-477-022-78	Sequence 78, Appl
296	10	35.7	35	2	US-08-449-447-25	Sequence 25, Appl

297	10	35.7	35	2	US-08-449-447-40	Sequence 40, Appl
298	10	35.7	35	2	US-08-449-447-48	Sequence 48, Appl
299	10	35.7	35	2	US-08-449-447-52	Sequence 52, Appl
300	10	35.7	35	2	US-08-449-447-62	Sequence 62, Appl
301	10	35.7	35	2	US-08-449-447-78	Sequence 78, Appl
302	10	35.7	35	2	US-08-184-328-25	Sequence 25, Appl
303	10	35.7	35	2	US-08-184-328-40	Sequence 40, Appl
304	10	35.7	35	2	US-08-184-328-48	Sequence 48, Appl
305	10	35.7	35	2	US-08-184-328-52	Sequence 52, Appl
306	10	35.7	35	2	US-08-184-328-62	Sequence 62, Appl
307	10	35.7	35	2	US-08-184-328-78	Sequence 78, Appl
308	10	35.7	35	2	US-08-521-097-25	Sequence 25, Appl
309	10	35.7	35	2	US-08-521-097-40	Sequence 40, Appl
310	10	35.7	35	2	US-08-521-097-48	Sequence 48, Appl
311	10	35.7	35	2	US-08-521-097-52	Sequence 52, Appl
312	10	35.7	35	2	US-08-521-097-62	Sequence 62, Appl
313	10	35.7	35	2	US-08-521-097-78	Sequence 78, Appl
314	10	35.7	36	1	US-08-449-500-73	Sequence 73, Appl
315	10	35.7	36	1	US-08-449-500-77	Sequence 77, Appl
316	10	35.7	36	1	US-08-449-317A-73	Sequence 73, Appl
317	10	35.7	36	1	US-08-449-317A-77	Sequence 77, Appl
318	10	35.7	36	2	US-08-477-022-73	Sequence 73, Appl
319	10	35.7	36	2	US-08-477-022-77	Sequence 77, Appl
320	10	35.7	36	2	US-08-449-447-73	Sequence 73, Appl
321	10	35.7	36	2	US-08-449-447-77	Sequence 77, Appl
322	10	35.7	36	2	US-08-184-328-73	Sequence 73, Appl
323	10	35.7	36	2	US-08-184-328-77	Sequence 77, Appl
324	10	35.7	36	2	US-08-521-097-73	Sequence 73, Appl
325	10	35.7	36	2	US-08-521-097-77	Sequence 77, Appl
326	10	35.7	37	1	US-07-915-247A-10	Sequence 10, Appl
327	10	35.7	37	1	US-08-443-863-10	Sequence 10, Appl
328	10	35.7	37	1	US-08-448-070-10	Sequence 10, Appl
329	10	35.7	37	1	US-08-449-500-10	Sequence 10, Appl
330	10	35.7	37	1	US-08-449-500-41	Sequence 41, Appl
331	10	35.7	37	1	US-08-449-500-57	Sequence 57, Appl
332	10	35.7	37	1	US-08-449-500-72	Sequence 72, Appl
333	10	35.7	37	1	US-08-449-500-74	Sequence 74, Appl
334	10	35.7	37	1	US-08-449-500-76	Sequence 76, Appl
335	10	35.7	37	1	US-08-449-317A-10	Sequence 10, Appl
336	10	35.7	37	1	US-08-449-317A-41	Sequence 41, Appl
337	10	35.7	37	1	US-08-449-317A-57	Sequence 57, Appl
338	10	35.7	37	1	US-08-449-317A-72	Sequence 72, Appl
339	10	35.7	37	1	US-08-449-317A-74	Sequence 74, Appl
340	10	35.7	37	1	US-08-449-317A-76	Sequence 76, Appl
341	10	35.7	37	2	US-08-477-022-10	Sequence 10, Appl
342	10	35.7	37	2	US-08-477-022-41	Sequence 41, Appl
343	10	35.7	37	2	US-08-477-022-57	Sequence 57, Appl
344	10	35.7	37	2	US-08-477-022-72	Sequence 72, Appl
345	10	35.7	37	2	US-08-477-022-74	Sequence 74, Appl
346	10	35.7	37	2	US-08-477-022-76	Sequence 76, Appl
347	10	35.7	37	2	US-08-449-447-10	Sequence 10, Appl
348	10	35.7	37	2	US-08-449-447-41	Sequence 41, Appl
349	10	35.7	37	2	US-08-449-447-57	Sequence 57, Appl
350	10	35.7	37	2	US-08-449-447-72	Sequence 72, Appl
351	10	35.7	37	2	US-08-449-447-74	Sequence 74, Appl
352	10	35.7	37	2	US-08-449-447-76	Sequence 76, Appl
353	10	35.7	37	2	US-08-184-328-10	Sequence 10, Appl

354	10	35.7	37	2	US-08-184-328-41	Sequence 41, Appl
355	10	35.7	37	2	US-08-184-328-57	Sequence 57, Appl
356	10	35.7	37	2	US-08-184-328-72	Sequence 72, Appl
357	10	35.7	37	2	US-08-184-328-74	Sequence 74, Appl
358	10	35.7	37	2	US-08-184-328-76	Sequence 76, Appl
359	10	35.7	37	2	US-08-521-097-10	Sequence 10, Appl
360	10	35.7	37	2	US-08-521-097-41	Sequence 41, Appl
361	10	35.7	37	2	US-08-521-097-57	Sequence 57, Appl
362	10	35.7	37	2	US-08-521-097-72	Sequence 72, Appl
363	10	35.7	37	2	US-08-521-097-74	Sequence 74, Appl
364	10	35.7	37	2	US-08-521-097-76	Sequence 76, Appl
365	10	35.7	38	1	US-08-449-500-42	Sequence 42, Appl
366	10	35.7	38	1	US-08-449-500-75	Sequence 75, Appl
367	10	35.7	38	1	US-08-449-317A-42	Sequence 42, Appl
368	10	35.7	38	1	US-08-449-317A-75	Sequence 75, Appl
369	10	35.7	38	2	US-08-477-022-42	Sequence 42, Appl
370	10	35.7	38	2	US-08-477-022-75	Sequence 75, Appl
371	10	35.7	38	2	US-08-449-447-42	Sequence 42, Appl
372	10	35.7	38	2	US-08-449-447-75	Sequence 75, Appl
373	10	35.7	38	2	US-08-184-328-42	Sequence 42, Appl
374	10	35.7	38	2	US-08-184-328-75	Sequence 75, Appl
375	10	35.7	38	2	US-08-521-097-42	Sequence 42, Appl
376	10	35.7	38	2	US-08-521-097-75	Sequence 75, Appl
377	9	32.1	34	1	US-07-915-247A-13	Sequence 13, Appl
378	9	32.1	34	1	US-08-443-863-13	Sequence 13, Appl
379	9	32.1	34	1	US-08-448-070-13	Sequence 13, Appl
380	9	32.1	34	1	US-08-449-500-13	Sequence 13, Appl
381	9	32.1	34	1	US-08-449-317A-13	Sequence 13, Appl
382	9	32.1	34	2	US-08-477-022-13	Sequence 13, Appl
383	9	32.1	34	2	US-08-449-447-13	Sequence 13, Appl
384	9	32.1	34	2	US-08-184-328-13	Sequence 13, Appl
385	9	32.1	34	2	US-08-521-097-13	Sequence 13, Appl
386	8	28.6	34	1	US-07-915-247A-16	Sequence 16, Appl
387	8	28.6	34	1	US-07-915-247A-17	Sequence 17, Appl
388	8	28.6	34	1	US-07-915-247A-18	Sequence 18, Appl
389	8	28.6	34	1	US-07-915-247A-19	Sequence 19, Appl
390	8	28.6	34	1	US-08-443-863-16	Sequence 16, Appl
391	8	28.6	34	1	US-08-443-863-17	Sequence 17, Appl
392	8	28.6	34	1	US-08-443-863-18	Sequence 18, Appl
393	8	28.6	34	1	US-08-443-863-19	Sequence 19, Appl
394	8	28.6	34	1	US-08-448-070-16	Sequence 16, Appl
395	8	28.6	34	1	US-08-448-070-17	Sequence 17, Appl
396	8	28.6	34	1	US-08-448-070-18	Sequence 18, Appl
397	8	28.6	34	1	US-08-448-070-19	Sequence 19, Appl
398	8	28.6	34	1	US-08-449-500-16	Sequence 16, Appl
399	8	28.6	34	1	US-08-449-500-17	Sequence 17, Appl
400	8	28.6	34	1	US-08-449-500-18	Sequence 18, Appl
401	8	28.6	34	1	US-08-449-500-19	Sequence 19, Appl
402	8	28.6	34	1	US-08-449-500-44	Sequence 44, Appl
403	8	28.6	34	1	US-08-449-500-45	Sequence 45, Appl
404	8	28.6	34	1	US-08-449-500-46	Sequence 46, Appl
405	8	28.6	34	1	US-08-449-500-47	Sequence 47, Appl
406	8	28.6	34	1	US-08-449-317A-16	Sequence 16, Appl
407	8	28.6	34	1	US-08-449-317A-17	Sequence 17, Appl
408	8	28.6	34	1	US-08-449-317A-18	Sequence 18, Appl
409	8	28.6	34	1	US-08-449-317A-19	Sequence 19, Appl
410	8	28.6	34	1	US-08-449-317A-44	Sequence 44, Appl

411	8	28.6	34	1	US-08-449-317A-45	Sequence 45, Appl
412	8	28.6	34	1	US-08-449-317A-46	Sequence 46, Appl
413	8	28.6	34	1	US-08-449-317A-47	Sequence 47, Appl
414	8	28.6	34	2	US-08-477-022-16	Sequence 16, Appl
415	8	28.6	34	2	US-08-477-022-17	Sequence 17, Appl
416	8	28.6	34	2	US-08-477-022-18	Sequence 18, Appl
417	8	28.6	34	2	US-08-477-022-19	Sequence 19, Appl
418	8	28.6	34	2	US-08-477-022-44	Sequence 44, Appl
419	8	28.6	34	2	US-08-477-022-45	Sequence 45, Appl
420	8	28.6	34	2	US-08-477-022-46	Sequence 46, Appl
421	8	28.6	34	2	US-08-477-022-47	Sequence 47, Appl
422	8	28.6	34	2	US-08-449-447-16	Sequence 16, Appl
423	8	28.6	34	2	US-08-449-447-17	Sequence 17, Appl
424	8	28.6	34	2	US-08-449-447-18	Sequence 18, Appl
425	8	28.6	34	2	US-08-449-447-19	Sequence 19, Appl
426	8	28.6	34	2	US-08-449-447-44	Sequence 44, Appl
427	8	28.6	34	2	US-08-449-447-45	Sequence 45, Appl
428	8	28.6	34	2	US-08-449-447-46	Sequence 46, Appl
429	8	28.6	34	2	US-08-449-447-47	Sequence 47, Appl
430	8	28.6	34	2	US-08-184-328-16	Sequence 16, Appl
431	8	28.6	34	2	US-08-184-328-17	Sequence 17, Appl
432	8	28.6	34	2	US-08-184-328-18	Sequence 18, Appl
433	8	28.6	34	2	US-08-184-328-19	Sequence 19, Appl
434	8	28.6	34	2	US-08-184-328-44	Sequence 44, Appl
435	8	28.6	34	2	US-08-184-328-45	Sequence 45, Appl
436	8	28.6	34	2	US-08-184-328-46	Sequence 46, Appl
437	8	28.6	34	2	US-08-184-328-47	Sequence 47, Appl
438	8	28.6	34	2	US-08-521-097-16	Sequence 16, Appl
439	8	28.6	34	2	US-08-521-097-17	Sequence 17, Appl
440	8	28.6	34	2	US-08-521-097-18	Sequence 18, Appl
441	8	28.6	34	2	US-08-521-097-19	Sequence 19, Appl
442	8	28.6	34	2	US-08-521-097-44	Sequence 44, Appl
443	8	28.6	34	2	US-08-521-097-45	Sequence 45, Appl
444	8	28.6	34	2	US-08-521-097-46	Sequence 46, Appl
445	8	28.6	34	2	US-08-521-097-47	Sequence 47, Appl
446	8	28.6	35	1	US-08-449-500-84	Sequence 84, Appl
447	8	28.6	35	1	US-08-449-317A-84	Sequence 84, Appl
448	8	28.6	35	2	US-08-477-022-84	Sequence 84, Appl
449	8	28.6	35	2	US-08-449-447-84	Sequence 84, Appl
450	8	28.6	35	2	US-08-184-328-84	Sequence 84, Appl
451	8	28.6	35	2	US-08-521-097-84	Sequence 84, Appl
452	7	25.0	34	1	US-07-915-247A-12	Sequence 12, Appl
453	7	25.0	34	1	US-08-443-863-12	Sequence 12, Appl
454	7	25.0	34	1	US-08-448-070-12	Sequence 12, Appl
455	7	25.0	34	1	US-08-468-275-7	Sequence 7, Appli
456	7	25.0	34	1	US-08-449-500-12	Sequence 12, Appl
457	7	25.0	34	1	US-08-449-500-38	Sequence 38, Appl
458	7	25.0	34	1	US-08-449-317A-12	Sequence 12, Appl
459	7	25.0	34	1	US-08-449-317A-38	Sequence 38, Appl
460	7	25.0	34	2	US-08-142-551B-3	Sequence 3, Appli
461	7	25.0	34	2	US-08-477-022-12	Sequence 12, Appl
462	7	25.0	34	2	US-08-477-022-38	Sequence 38, Appl
463	7	25.0	34	2	US-08-449-447-12	Sequence 12, Appl
464	7	25.0	34	2	US-08-449-447-38	Sequence 38, Appl
465	7	25.0	34	2	US-08-184-328-12	Sequence 12, Appl
466	7	25.0	34	2	US-08-184-328-38	Sequence 38, Appl
467	7	25.0	34	2	US-08-521-097-12	Sequence 12, Appl

468	7	25.0	34	2	US-08-521-097-38	Sequence 38, Appl
469	7	25.0	34	3	US-08-903-497A-4	Sequence 4, Appli
470	7	25.0	34	4	US-09-007-466-7	Sequence 7, Appli
471	7	25.0	34	4	US-09-635-076-4	Sequence 4, Appli
472	7	25.0	35	2	US-08-142-551B-4	Sequence 4, Appli
473	7	25.0	35	2	US-08-142-551B-5	Sequence 5, Appli
474	7	25.0	35	2	US-08-142-551B-7	Sequence 7, Appli
475	7	25.0	35	2	US-08-142-551B-11	Sequence 11, Appl
476	7	25.0	35	2	US-08-142-551B-12	Sequence 12, Appl
477	7	25.0	35	2	US-08-142-551B-13	Sequence 13, Appl
478	7	25.0	35	2	US-08-142-551B-14	Sequence 14, Appl
479	7	25.0	35	2	US-08-142-551B-15	Sequence 15, Appl
480	7	25.0	35	2	US-08-142-551B-16	Sequence 16, Appl
481	7	25.0	35	2	US-08-142-551B-17	Sequence 17, Appl
482	7	25.0	35	2	US-08-142-551B-18	Sequence 18, Appl
483	7	25.0	35	2	US-08-142-551B-19	Sequence 19, Appl
484	7	25.0	35	2	US-08-142-551B-20	Sequence 20, Appl
485	7	25.0	35	2	US-08-142-551B-21	Sequence 21, Appl
486	7	25.0	35	2	US-08-142-551B-22	Sequence 22, Appl
487	7	25.0	35	2	US-08-142-551B-23	Sequence 23, Appl
488	7	25.0	35	2	US-08-142-551B-24	Sequence 24, Appl
489	7	25.0	35	2	US-08-142-551B-25	Sequence 25, Appl
490	7	25.0	35	2	US-08-142-551B-26	Sequence 26, Appl
491	7	25.0	35	2	US-08-142-551B-27	Sequence 27, Appl
492	7	25.0	35	2	US-08-142-551B-28	Sequence 28, Appl
493	7	25.0	35	2	US-08-142-551B-29	Sequence 29, Appl
494	7	25.0	35	2	US-08-142-551B-30	Sequence 30, Appl
495	7	25.0	35	2	US-08-142-551B-49	Sequence 49, Appl
496	7	25.0	35	2	US-08-142-551B-53	Sequence 53, Appl
497	7	25.0	35	2	US-08-142-551B-54	Sequence 54, Appl
498	7	25.0	35	2	US-08-142-551B-55	Sequence 55, Appl
499	7	25.0	35	2	US-08-142-551B-56	Sequence 56, Appl
500	7	25.0	35	2	US-08-142-551B-57	Sequence 57, Appl
501	7	25.0	35	2	US-08-142-551B-58	Sequence 58, Appl
502	7	25.0	35	2	US-08-142-551B-59	Sequence 59, Appl
503	7	25.0	35	2	US-08-142-551B-60	Sequence 60, Appl
504	7	25.0	35	2	US-08-142-551B-61	Sequence 61, Appl
505	7	25.0	35	2	US-08-142-551B-62	Sequence 62, Appl
506	7	25.0	35	2	US-08-142-551B-63	Sequence 63, Appl
507	7	25.0	35	2	US-08-142-551B-64	Sequence 64, Appl
508	7	25.0	35	2	US-08-142-551B-65	Sequence 65, Appl
509	7	25.0	35	2	US-08-142-551B-66	Sequence 66, Appl
510	7	25.0	35	2	US-08-142-551B-67	Sequence 67, Appl
511	7	25.0	35	2	US-08-142-551B-68	Sequence 68, Appl
512	7	25.0	35	2	US-08-142-551B-69	Sequence 69, Appl
513	7	25.0	35	2	US-08-142-551B-70	Sequence 70, Appl
514	7	25.0	35	2	US-08-142-551B-71	Sequence 71, Appl
515	7	25.0	35	2	US-08-142-551B-72	Sequence 72, Appl
516	7	25.0	35	2	US-08-142-551B-73	Sequence 73, Appl
517	7	25.0	35	2	US-08-142-551B-74	Sequence 74, Appl
518	7	25.0	35	2	US-08-142-551B-75	Sequence 75, Appl
519	7	25.0	35	2	US-08-142-551B-76	Sequence 76, Appl
520	7	25.0	35	2	US-08-142-551B-77	Sequence 77, Appl
521	7	25.0	35	2	US-08-142-551B-78	Sequence 78, Appl
522	7	25.0	35	2	US-08-142-551B-79	Sequence 79, Appl
523	7	25.0	35	2	US-08-142-551B-80	Sequence 80, Appl
524	7	25.0	35	2	US-08-142-551B-81	Sequence 81, Appl

525	7	25.0	35	2	US-08-142-551B-82	Sequence 82, Appl
526	7	25.0	35	2	US-08-142-551B-83	Sequence 83, Appl
527	7	25.0	35	2	US-08-142-551B-84	Sequence 84, Appl
528	7	25.0	35	2	US-08-142-551B-85	Sequence 85, Appl
529	7	25.0	35	2	US-08-142-551B-86	Sequence 86, Appl
530	7	25.0	35	2	US-08-142-551B-87	Sequence 87, Appl
531	7	25.0	35	2	US-08-142-551B-88	Sequence 88, Appl
532	7	25.0	35	2	US-08-142-551B-89	Sequence 89, Appl
533	7	25.0	35	2	US-08-142-551B-90	Sequence 90, Appl
534	7	25.0	35	2	US-08-142-551B-91	Sequence 91, Appl
535	7	25.0	35	2	US-08-142-551B-92	Sequence 92, Appl
536	7	25.0	35	2	US-08-142-551B-93	Sequence 93, Appl
537	7	25.0	35	2	US-08-142-551B-94	Sequence 94, Appl
538	7	25.0	35	2	US-08-142-551B-95	Sequence 95, Appl
539	7	25.0	35	2	US-08-142-551B-96	Sequence 96, Appl
540	7	25.0	35	2	US-08-142-551B-97	Sequence 97, Appl
541	7	25.0	35	2	US-08-142-551B-98	Sequence 98, Appl
542	7	25.0	35	2	US-08-142-551B-99	Sequence 99, Appl
543	7	25.0	35	2	US-08-142-551B-100	Sequence 100, App
544	7	25.0	35	2	US-08-142-551B-101	Sequence 101, App
545	7	25.0	35	2	US-08-142-551B-102	Sequence 102, App
546	7	25.0	35	2	US-08-142-551B-103	Sequence 103, App
547	7	25.0	35	2	US-08-142-551B-104	Sequence 104, App
548	7	25.0	35	2	US-08-142-551B-105	Sequence 105, App
549	7	25.0	35	2	US-08-142-551B-106	Sequence 106, App
550	7	25.0	35	2	US-08-142-551B-107	Sequence 107, App
551	7	25.0	35	2	US-08-142-551B-108	Sequence 108, App
552	7	25.0	35	2	US-08-142-551B-109	Sequence 109, App
553	7	25.0	35	2	US-08-142-551B-110	Sequence 110, App
554	7	25.0	35	2	US-08-142-551B-111	Sequence 111, App
555	7	25.0	35	2	US-08-142-551B-112	Sequence 112, App
556	7	25.0	35	2	US-08-142-551B-113	Sequence 113, App
557	7	25.0	35	2	US-08-142-551B-114	Sequence 114, App
558	7	25.0	35	2	US-08-142-551B-115	Sequence 115, App
559	7	25.0	35	2	US-08-142-551B-116	Sequence 116, App
560	7	25.0	35	2	US-08-142-551B-117	Sequence 117, App
561	7	25.0	35	2	US-08-142-551B-118	Sequence 118, App
562	7	25.0	35	2	US-08-142-551B-120	Sequence 120, App
563	7	25.0	35	2	US-08-142-551B-121	Sequence 121, App
564	7	25.0	35	2	US-08-142-551B-122	Sequence 122, App
565	7	25.0	35	2	US-08-142-551B-123	Sequence 123, App
566	7	25.0	35	2	US-08-142-551B-124	Sequence 124, App
567	7	25.0	35	4	US-08-952-980B-7	Sequence 7, Appli
568	6	21.4	34	1	US-08-449-500-35	Sequence 35, Appl
569	6	21.4	34	1	US-08-449-500-36	Sequence 36, Appl
570	6	21.4	34	1	US-08-449-500-61	Sequence 61, Appl
571	6	21.4	34	1	US-08-449-317A-35	Sequence 35, Appl
572	6	21.4	34	1	US-08-449-317A-36	Sequence 36, Appl
573	6	21.4	34	1	US-08-449-317A-61	Sequence 61, Appl
574	6	21.4	34	2	US-08-477-022-35	Sequence 35, Appl
575	6	21.4	34	2	US-08-477-022-36	Sequence 36, Appl
576	6	21.4	34	2	US-08-477-022-61	Sequence 61, Appl
577	6	21.4	34	2	US-08-449-447-35	Sequence 35, Appl
578	6	21.4	34	2	US-08-449-447-36	Sequence 36, Appl
579	6	21.4	34	2	US-08-449-447-61	Sequence 61, Appl
580	6	21.4	34	2	US-08-184-328-35	Sequence 35, Appl
581	6	21.4	34	2	US-08-184-328-36	Sequence 36, Appl

582	6	21.4	34	2	US-08-184-328-61	Sequence 61, Appl
583	6	21.4	34	2	US-08-521-097-35	Sequence 35, Appl
584	6	21.4	34	2	US-08-521-097-36	Sequence 36, Appl
585	6	21.4	34	2	US-08-521-097-61	Sequence 61, Appl
586	6	21.4	34	4	US-09-228-990-72	Sequence 72, Appl
587	6	21.4	34	4	US-09-442-989-21	Sequence 21, Appl
588	6	21.4	35	2	US-08-142-551B-31	Sequence 31, Appl
589	6	21.4	35	2	US-08-142-551B-32	Sequence 32, Appl
590	6	21.4	35	2	US-08-142-551B-33	Sequence 33, Appl
591	6	21.4	35	2	US-08-142-551B-34	Sequence 34, Appl
592	6	21.4	35	2	US-08-142-551B-50	Sequence 50, Appl
593	6	21.4	35	2	US-08-142-551B-51	Sequence 51, Appl
594	6	21.4	35	2	US-08-142-551B-52	Sequence 52, Appl
595	5	17.9	28	4	US-09-406-813-3	Sequence 3, Appli
596	5	17.9	28	4	US-09-406-813-6	Sequence 6, Appli
597	5	17.9	28	4	US-09-448-867-1	Sequence 1, Appli
598	5	17.9	28	4	US-09-448-867-2	Sequence 2, Appli
599	5	17.9	28	4	US-09-448-867-4	Sequence 4, Appli
600	5	17.9	28	4	US-09-448-867-6	Sequence 6, Appli
601	5	17.9	28	4	US-09-448-867-8	Sequence 8, Appli
602	5	17.9	28	4	US-09-448-867-10	Sequence 10, Appl
603	5	17.9	28	4	US-09-448-867-12	Sequence 12, Appl
604	5	17.9	28	4	US-09-228-990-54	Sequence 54, Appl
605	5	17.9	28	4	US-09-228-990-62	Sequence 62, Appl
606	5	17.9	28	4	US-09-228-990-65	Sequence 65, Appl
607	5	17.9	28	4	US-09-228-990-78	Sequence 78, Appl
608	5	17.9	28	4	US-09-228-990-79	Sequence 79, Appl
609	5	17.9	28	4	US-09-442-989-22	Sequence 22, Appl
610	5	17.9	28	4	US-09-442-989-24	Sequence 24, Appl
611	5	17.9	28	4	US-09-442-989-25	Sequence 25, Appl
612	5	17.9	29	4	US-09-406-813-4	Sequence 4, Appli
613	5	17.9	29	4	US-09-406-813-8	Sequence 8, Appli
614	5	17.9	29	4	US-09-228-990-53	Sequence 53, Appl
615	5	17.9	29	4	US-09-228-990-63	Sequence 63, Appl
616	5	17.9	30	1	US-08-262-495C-5	Sequence 5, Appli
617	5	17.9	30	1	US-08-262-495C-6	Sequence 6, Appli
618	5	17.9	30	3	US-08-904-760B-7	Sequence 7, Appli
619	5	17.9	30	3	US-08-904-760B-33	Sequence 33, Appl
620	5	17.9	30	3	US-08-904-760B-34	Sequence 34, Appl
621	5	17.9	30	3	US-08-904-760B-35	Sequence 35, Appl
622	5	17.9	30	4	US-09-228-990-52	Sequence 52, Appl
623	5	17.9	30	4	US-09-228-990-64	Sequence 64, Appl
624	5	17.9	30	4	US-09-536-785A-7	Sequence 7, Appli
625	5	17.9	30	4	US-09-536-785A-23	Sequence 23, Appl
626	5	17.9	30	4	US-09-536-785A-33	Sequence 33, Appl
627	5	17.9	30	4	US-09-536-785A-34	Sequence 34, Appl
628	5	17.9	30	4	US-09-536-785A-35	Sequence 35, Appl
629	5	17.9	31	1	US-08-262-495C-3	Sequence 3, Appli
630	5	17.9	31	1	US-08-262-495C-4	Sequence 4, Appli
631	5	17.9	31	2	US-08-691-647C-1	Sequence 1, Appli
632	5	17.9	31	2	US-08-691-647C-2	Sequence 2, Appli
633	5	17.9	31	2	US-08-691-647C-3	Sequence 3, Appli
634	5	17.9	31	2	US-08-691-647C-4	Sequence 4, Appli
635	5	17.9	31	2	US-08-691-647C-6	Sequence 6, Appli
636	5	17.9	31	3	US-08-904-760B-1	Sequence 1, Appli
637	5	17.9	31	3	US-08-904-760B-2	Sequence 2, Appli
638	5	17.9	31	3	US-08-904-760B-3	Sequence 3, Appli

639	5	17.9	31	3	US-08-904-760B-4	Sequence 4, Appli
640	5	17.9	31	3	US-08-904-760B-5	Sequence 5, Appli
641	5	17.9	31	3	US-08-904-760B-6	Sequence 6, Appli
642	5	17.9	31	3	US-08-904-760B-8	Sequence 8, Appli
643	5	17.9	31	3	US-08-904-760B-11	Sequence 11, Appl
644	5	17.9	31	3	US-08-904-760B-12	Sequence 12, Appl
645	5	17.9	31	3	US-08-904-760B-13	Sequence 13, Appl
646	5	17.9	31	3	US-08-904-760B-14	Sequence 14, Appl
647	5	17.9	31	3	US-08-904-760B-15	Sequence 15, Appl
648	5	17.9	31	3	US-08-904-760B-16	Sequence 16, Appl
649	5	17.9	31	3	US-08-904-760B-17	Sequence 17, Appl
650	5	17.9	31	3	US-08-904-760B-18	Sequence 18, Appl
651	5	17.9	31	3	US-08-904-760B-19	Sequence 19, Appl
652	5	17.9	31	3	US-08-904-760B-20	Sequence 20, Appl
653	5	17.9	31	3	US-08-904-760B-21	Sequence 21, Appl
654	5	17.9	31	3	US-08-904-760B-23	Sequence 23, Appl
655	5	17.9	31	3	US-08-904-760B-32	Sequence 32, Appl
656	5	17.9	31	4	US-09-406-813-2	Sequence 2, Appli
657	5	17.9	31	4	US-09-406-813-5	Sequence 5, Appli
658	5	17.9	31	4	US-09-228-990-3	Sequence 3, Appli
659	5	17.9	31	4	US-09-228-990-4	Sequence 4, Appli
660	5	17.9	31	4	US-09-228-990-5	Sequence 5, Appli
661	5	17.9	31	4	US-09-228-990-6	Sequence 6, Appli
662	5	17.9	31	4	US-09-228-990-7	Sequence 7, Appli
663	5	17.9	31	4	US-09-228-990-8	Sequence 8, Appli
664	5	17.9	31	4	US-09-228-990-9	Sequence 9, Appli
665	5	17.9	31	4	US-09-228-990-10	Sequence 10, Appl
666	5	17.9	31	4	US-09-228-990-16	Sequence 16, Appl
667	5	17.9	31	4	US-09-228-990-17	Sequence 17, Appl
668	5	17.9	31	4	US-09-228-990-18	Sequence 18, Appl
669	5	17.9	31	4	US-09-228-990-19	Sequence 19, Appl
670	5	17.9	31	4	US-09-228-990-20	Sequence 20, Appl
671	5	17.9	31	4	US-09-228-990-21	Sequence 21, Appl
672	5	17.9	31	4	US-09-228-990-22	Sequence 22, Appl
673	5	17.9	31	4	US-09-228-990-23	Sequence 23, Appl
674	5	17.9	31	4	US-09-228-990-24	Sequence 24, Appl
675	5	17.9	31	4	US-09-228-990-25	Sequence 25, Appl
676	5	17.9	31	4	US-09-228-990-26	Sequence 26, Appl
677	5	17.9	31	4	US-09-228-990-27	Sequence 27, Appl
678	5	17.9	31	4	US-09-228-990-32	Sequence 32, Appl
679	5	17.9	31	4	US-09-228-990-33	Sequence 33, Appl
680	5	17.9	31	4	US-09-228-990-34	Sequence 34, Appl
681	5	17.9	31	4	US-09-228-990-35	Sequence 35, Appl
682	5	17.9	31	4	US-09-228-990-36	Sequence 36, Appl
683	5	17.9	31	4	US-09-228-990-37	Sequence 37, Appl
684	5	17.9	31	4	US-09-228-990-38	Sequence 38, Appl
685	5	17.9	31	4	US-09-228-990-39	Sequence 39, Appl
686	5	17.9	31	4	US-09-228-990-42	Sequence 42, Appl
687	5	17.9	31	4	US-09-228-990-43	Sequence 43, Appl
688	5	17.9	31	4	US-09-228-990-44	Sequence 44, Appl
689	5	17.9	31	4	US-09-228-990-45	Sequence 45, Appl
690	5	17.9	31	4	US-09-228-990-47	Sequence 47, Appl
691	5	17.9	31	4	US-09-228-990-48	Sequence 48, Appl
692	5	17.9	31	4	US-09-228-990-49	Sequence 49, Appl
693	5	17.9	31	4	US-09-228-990-50	Sequence 50, Appl
694	5	17.9	31	4	US-09-228-990-51	Sequence 51, Appl
695	5	17.9	31	4	US-09-228-990-67	Sequence 67, Appl

696	5	17.9	31	4	US-09-228-990-68	Sequence 68, Appl
697	5	17.9	31	4	US-09-228-990-69	Sequence 69, Appl
698	5	17.9	31	4	US-09-228-990-70	Sequence 70, Appl
699	5	17.9	31	4	US-09-228-990-73	Sequence 73, Appl
700	5	17.9	31	4	US-09-228-990-74	Sequence 74, Appl
701	5	17.9	31	4	US-09-228-990-76	Sequence 76, Appl
702	5	17.9	31	4	US-09-228-990-80	Sequence 80, Appl
703	5	17.9	31	4	US-09-228-990-81	Sequence 81, Appl
704	5	17.9	31	4	US-09-228-990-82	Sequence 82, Appl
705	5	17.9	31	4	US-09-228-990-83	Sequence 83, Appl
706	5	17.9	31	4	US-09-228-990-84	Sequence 84, Appl
707	5	17.9	31	4	US-09-228-990-85	Sequence 85, Appl
708	5	17.9	31	4	US-09-536-785A-1	Sequence 1, Appli
709	5	17.9	31	4	US-09-536-785A-2	Sequence 2, Appli
710	5	17.9	31	4	US-09-536-785A-3	Sequence 3, Appli
711	5	17.9	31	4	US-09-536-785A-4	Sequence 4, Appli
712	5	17.9	31	4	US-09-536-785A-5	Sequence 5, Appli
713	5	17.9	31	4	US-09-536-785A-6	Sequence 6, Appli
714	5	17.9	31	4	US-09-536-785A-8	Sequence 8, Appli
715	5	17.9	31	4	US-09-536-785A-11	Sequence 11, Appl
716	5	17.9	31	4	US-09-536-785A-12	Sequence 12, Appl
717	5	17.9	31	4	US-09-536-785A-13	Sequence 13, Appl
718	5	17.9	31	4	US-09-536-785A-14	Sequence 14, Appl
719	5	17.9	31	4	US-09-536-785A-15	Sequence 15, Appl
720	5	17.9	31	4	US-09-536-785A-16	Sequence 16, Appl
721	5	17.9	31	4	US-09-536-785A-17	Sequence 17, Appl
722	5	17.9	31	4	US-09-536-785A-18	Sequence 18, Appl
723	5	17.9	31	4	US-09-536-785A-19	Sequence 19, Appl
724	5	17.9	31	4	US-09-536-785A-20	Sequence 20, Appl
725	5	17.9	31	4	US-09-536-785A-21	Sequence 21, Appl
726	5	17.9	31	4	US-09-536-785A-32	Sequence 32, Appl
727	5	17.9	31	4	US-09-536-785A-36	Sequence 36, Appl
728	5	17.9	31	4	US-09-442-989-1	Sequence 1, Appli
729	5	17.9	31	4	US-09-442-989-2	Sequence 2, Appli
730	5	17.9	31	4	US-09-442-989-3	Sequence 3, Appli
731	5	17.9	31	4	US-09-442-989-4	Sequence 4, Appli
732	5	17.9	31	4	US-09-442-989-5	Sequence 5, Appli
733	5	17.9	31	4	US-09-442-989-6	Sequence 6, Appli
734	5	17.9	31	4	US-09-442-989-7	Sequence 7, Appli
735	5	17.9	31	4	US-09-442-989-8	Sequence 8, Appli
736	5	17.9	31	4	US-09-442-989-13	Sequence 13, Appl
737	5	17.9	31	4	US-09-442-989-14	Sequence 14, Appl
738	5	17.9	31	4	US-09-442-989-15	Sequence 15, Appl
739	5	17.9	31	4	US-09-442-989-16	Sequence 16, Appl
740	5	17.9	31	4	US-09-442-989-17	Sequence 17, Appl
741	5	17.9	31	4	US-09-442-989-32	Sequence 32, Appl
742	5	17.9	32	4	US-09-536-785A-37	Sequence 37, Appl
743	5	17.9	33	1	US-08-256-363-1	Sequence 1, Appli
744	5	17.9	33	1	US-08-449-500-49	Sequence 49, Appl
745	5	17.9	33	1	US-08-449-500-50	Sequence 50, Appl
746	5	17.9	33	1	US-08-449-317A-49	Sequence 49, Appl
747	5	17.9	33	1	US-08-449-317A-50	Sequence 50, Appl
748	5	17.9	33	2	US-08-477-022-49	Sequence 49, Appl
749	5	17.9	33	2	US-08-477-022-50	Sequence 50, Appl
750	5	17.9	33	2	US-08-653-632-65	Sequence 65, Appl
751	5	17.9	33	2	US-08-449-447-49	Sequence 49, Appl
752	5	17.9	33	2	US-08-449-447-50	Sequence 50, Appl

753	5	17.9	33	2	US-08-184-328-49	Sequence 49, Appl
754	5	17.9	33	2	US-08-184-328-50	Sequence 50, Appl
755	5	17.9	33	2	US-08-671-487A-4	Sequence 4, Appli
756	5	17.9	33	2	US-08-521-097-49	Sequence 49, Appl
757	5	17.9	33	2	US-08-521-097-50	Sequence 50, Appl
758	5	17.9	33	4	US-09-194-296-4	Sequence 4, Appli
759	5	17.9	33	4	US-09-194-296-7	Sequence 7, Appli
760	5	17.9	33	4	US-09-194-296-14	Sequence 14, Appl
761	5	17.9	33	4	US-09-194-296-15	Sequence 15, Appl
762	5	17.9	33	4	US-09-194-296-16	Sequence 16, Appl
763	5	17.9	33	4	US-09-194-296-17	Sequence 17, Appl
764	5	17.9	33	4	US-09-194-296-18	Sequence 18, Appl
765	5	17.9	33	4	US-09-194-296-20	Sequence 20, Appl
766	5	17.9	33	4	US-09-194-296-21	Sequence 21, Appl
767	5	17.9	33	4	US-09-194-296-22	Sequence 22, Appl
768	5	17.9	33	4	US-09-194-296-23	Sequence 23, Appl
769	5	17.9	33	4	US-09-194-296-26	Sequence 26, Appl
770	5	17.9	33	4	US-09-194-296-27	Sequence 27, Appl
771	5	17.9	33	4	US-09-194-296-28	Sequence 28, Appl
772	5	17.9	33	4	US-09-194-296-29	Sequence 29, Appl
773	5	17.9	33	4	US-09-194-296-30	Sequence 30, Appl
774	5	17.9	33	4	US-09-447-800-3	Sequence 3, Appli
775	5	17.9	33	4	US-09-447-800-6	Sequence 6, Appli
776	5	17.9	33	4	US-09-447-800-9	Sequence 9, Appli
777	5	17.9	33	4	US-09-536-785A-38	Sequence 38, Appl
778	5	17.9	34	1	US-07-773-098-3	Sequence 3, Appli
779	5	17.9	34	1	US-07-773-098-4	Sequence 4, Appli
780	5	17.9	34	1	US-07-773-098-5	Sequence 5, Appli
781	5	17.9	34	1	US-07-773-098-6	Sequence 6, Appli
782	5	17.9	34	1	US-07-765-373-1	Sequence 1, Appli
783	5	17.9	34	1	US-08-033-099-1	Sequence 1, Appli
784	5	17.9	34	1	US-08-033-099-2	Sequence 2, Appli
785	5	17.9	34	1	US-08-049-402-2	Sequence 2, Appli
786	5	17.9	34	1	US-08-262-495C-1	Sequence 1, Appli
787	5	17.9	34	1	US-08-262-495C-2	Sequence 2, Appli
788	5	17.9	34	1	US-07-915-247A-1	Sequence 1, Appli
789	5	17.9	34	1	US-07-915-247A-2	Sequence 2, Appli
790	5	17.9	34	1	US-07-915-247A-3	Sequence 3, Appli
791	5	17.9	34	1	US-07-915-247A-23	Sequence 23, Appl
792	5	17.9	34	1	US-07-915-247A-24	Sequence 24, Appl
793	5	17.9	34	1	US-08-443-863-1	Sequence 1, Appli
794	5	17.9	34	1	US-08-443-863-2	Sequence 2, Appli
795	5	17.9	34	1	US-08-443-863-3	Sequence 3, Appli
796	5	17.9	34	1	US-08-443-863-23	Sequence 23, Appl
797	5	17.9	34	1	US-08-443-863-24	Sequence 24, Appl
798	5	17.9	34	1	US-08-448-070-1	Sequence 1, Appli
799	5	17.9	34	1	US-08-448-070-2	Sequence 2, Appli
800	5	17.9	34	1	US-08-448-070-3	Sequence 3, Appli
801	5	17.9	34	1	US-08-448-070-23	Sequence 23, Appl
802	5	17.9	34	1	US-08-448-070-24	Sequence 24, Appl
803	5	17.9	34	1	US-08-488-105-1	Sequence 1, Appli
804	5	17.9	34	1	US-08-488-105-2	Sequence 2, Appli
805	5	17.9	34	1	US-08-488-105-3	Sequence 3, Appli
806	5	17.9	34	1	US-08-488-105-4	Sequence 4, Appli
807	5	17.9	34	1	US-08-488-105-5	Sequence 5, Appli
808	5	17.9	34	1	US-08-488-105-6	Sequence 6, Appli
809	5	17.9	34	1	US-08-488-105-7	Sequence 7, Appli

810	5	17.9	34	1	US-08-488-105-8	Sequence 8, Appli
811	5	17.9	34	1	US-08-488-105-9	Sequence 9, Appli
812	5	17.9	34	1	US-08-488-105-10	Sequence 10, Appl
813	5	17.9	34	1	US-08-488-105-11	Sequence 11, Appl
814	5	17.9	34	1	US-08-488-105-12	Sequence 12, Appl
815	5	17.9	34	1	US-08-488-105-13	Sequence 13, Appl
816	5	17.9	34	1	US-08-488-105-14	Sequence 14, Appl
817	5	17.9	34	1	US-08-488-105-15	Sequence 15, Appl
818	5	17.9	34	1	US-08-488-105-16	Sequence 16, Appl
819	5	17.9	34	1	US-08-488-105-17	Sequence 17, Appl
820	5	17.9	34	1	US-08-488-105-18	Sequence 18, Appl
821	5	17.9	34	1	US-08-526-987-2	Sequence 2, Appli
822	5	17.9	34	1	US-08-468-275-6	Sequence 6, Appli
823	5	17.9	34	1	US-08-256-363-2	Sequence 2, Appli
824	5	17.9	34	1	US-08-449-500-1	Sequence 1, Appli
825	5	17.9	34	1	US-08-449-500-2	Sequence 2, Appli
826	5	17.9	34	1	US-08-449-500-3	Sequence 3, Appli
827	5	17.9	34	1	US-08-449-500-23	Sequence 23, Appl
828	5	17.9	34	1	US-08-449-500-24	Sequence 24, Appl
829	5	17.9	34	1	US-08-449-317A-1	Sequence 1, Appli
830	5	17.9	34	1	US-08-449-317A-2	Sequence 2, Appli
831	5	17.9	34	1	US-08-449-317A-3	Sequence 3, Appli
832	5	17.9	34	1	US-08-449-317A-23	Sequence 23, Appl
833	5	17.9	34	1	US-08-449-317A-24	Sequence 24, Appl
834	5	17.9	34	2	US-08-142-551B-2	Sequence 2, Appli
835	5	17.9	34	2	US-08-477-022-1	Sequence 1, Appli
836	5	17.9	34	2	US-08-477-022-2	Sequence 2, Appli
837	5	17.9	34	2	US-08-477-022-3	Sequence 3, Appli
838	5	17.9	34	2	US-08-477-022-23	Sequence 23, Appl
839	5	17.9	34	2	US-08-477-022-24	Sequence 24, Appl
840	5	17.9	34	2	US-08-449-447-1	Sequence 1, Appli
841	5	17.9	34	2	US-08-449-447-2	Sequence 2, Appli
842	5	17.9	34	2	US-08-449-447-3	Sequence 3, Appli
843	5	17.9	34	2	US-08-449-447-23	Sequence 23, Appl
844	5	17.9	34	2	US-08-449-447-24	Sequence 24, Appl
845	5	17.9	34	2	US-08-835-231-13	Sequence 13, Appl
846	5	17.9	34	2	US-08-184-328-1	Sequence 1, Appli
847	5	17.9	34	2	US-08-184-328-2	Sequence 2, Appli
848	5	17.9	34	2	US-08-184-328-3	Sequence 3, Appli
849	5	17.9	34	2	US-08-184-328-23	Sequence 23, Appl
850	5	17.9	34	2	US-08-184-328-24	Sequence 24, Appl
851	5	17.9	34	2	US-08-411-726-2	Sequence 2, Appli
852	5	17.9	34	2	US-08-691-647C-5	Sequence 5, Appli
853	5	17.9	34	2	US-08-521-097-1	Sequence 1, Appli
854	5	17.9	34	2	US-08-521-097-2	Sequence 2, Appli
855	5	17.9	34	2	US-08-521-097-3	Sequence 3, Appli
856	5	17.9	34	2	US-08-521-097-23	Sequence 23, Appl
857	5	17.9	34	2	US-08-521-097-24	Sequence 24, Appl
858	5	17.9	34	3	US-09-044-536A-1	Sequence 1, Appli
859	5	17.9	34	3	US-08-904-760B-9	Sequence 9, Appli
860	5	17.9	34	3	US-08-904-760B-10	Sequence 10, Appl
861	5	17.9	34	3	US-08-904-760B-22	Sequence 22, Appl
862	5	17.9	34	3	US-08-903-497A-1	Sequence 1, Appli
863	5	17.9	34	3	US-09-108-661-13	Sequence 13, Appl
864	5	17.9	34	4	US-09-007-466-6	Sequence 6, Appli
865	5	17.9	34	4	US-09-406-813-1	Sequence 1, Appli
866	5	17.9	34	4	US-08-952-980B-6	Sequence 6, Appli

867	5	17.9	34	4	US-08-952-980B-9	Sequence 9, Appli
868	5	17.9	34	4	US-09-635-076-1	Sequence 1, Appli
869	5	17.9	34	4	US-09-228-990-1	Sequence 1, Appli
870	5	17.9	34	4	US-09-228-990-46	Sequence 46, Appl
871	5	17.9	34	4	US-09-228-990-75	Sequence 75, Appl
872	5	17.9	34	4	US-09-447-800-1	Sequence 1, Appli
873	5	17.9	34	4	US-09-447-800-2	Sequence 2, Appli
874	5	17.9	34	4	US-09-447-800-5	Sequence 5, Appli
875	5	17.9	34	4	US-09-447-800-8	Sequence 8, Appli
876	5	17.9	34	4	US-09-449-632-22	Sequence 22, Appl
877	5	17.9	34	4	US-09-449-632-24	Sequence 24, Appl
878	5	17.9	34	4	US-09-536-785A-9	Sequence 9, Appli
879	5	17.9	34	4	US-09-536-785A-10	Sequence 10, Appl
880	5	17.9	34	4	US-09-536-785A-22	Sequence 22, Appl
881	5	17.9	34	4	US-09-536-785A-24	Sequence 24, Appl
882	5	17.9	34	4	US-09-442-989-18	Sequence 18, Appl
883	5	17.9	34	4	US-09-442-989-19	Sequence 19, Appl
884	5	17.9	34	4	US-09-442-989-26	Sequence 26, Appl
885	5	17.9	34	4	US-09-442-989-46	Sequence 46, Appl
886	5	17.9	34	5	PCT-US95-15800-22	Sequence 22, Appl
887	5	17.9	35	1	US-08-256-363-3	Sequence 3, Appli
888	5	17.9	35	2	US-08-142-551B-35	Sequence 35, Appl
889	5	17.9	35	2	US-08-142-551B-36	Sequence 36, Appl
890	5	17.9	35	2	US-08-142-551B-37	Sequence 37, Appl
891	5	17.9	35	2	US-08-142-551B-47	Sequence 47, Appl
892	5	17.9	35	2	US-08-142-551B-48	Sequence 48, Appl
893	5	17.9	35	4	US-09-536-785A-25	Sequence 25, Appl
894	5	17.9	36	1	US-08-112-024-2	Sequence 2, Appli
895	5	17.9	36	1	US-08-256-363-4	Sequence 4, Appli
896	5	17.9	36	4	US-09-536-785A-26	Sequence 26, Appl
897	5	17.9	37	1	US-08-440-117-1	Sequence 1, Appli
898	5	17.9	37	3	US-09-068-738A-16	Sequence 16, Appl
899	5	17.9	37	4	US-09-536-785A-27	Sequence 27, Appl
900	5	17.9	38	1	US-08-112-024-1	Sequence 1, Appli
901	5	17.9	38	1	US-08-232-849-1	Sequence 1, Appli
902	5	17.9	38	2	US-08-625-586-1	Sequence 1, Appli
903	5	17.9	38	3	US-09-128-401-1	Sequence 1, Appli
904	5	17.9	38	5	PCT-US95-15800-29	Sequence 29, Appl
905	4	14.3	28	1	US-08-427-072-14	Sequence 14, Appl
906	4	14.3	28	1	US-08-427-072-15	Sequence 15, Appl
907	4	14.3	28	3	US-08-486-099-88	Sequence 88, Appl
908	4	14.3	28	3	US-08-360-107A-98	Sequence 98, Appl
909	4	14.3	28	3	US-08-484-223B-88	Sequence 88, Appl
910	4	14.3	28	3	US-08-919-597-88	Sequence 88, Appl
911	4	14.3	28	3	US-08-475-668A-88	Sequence 88, Appl
912	4	14.3	28	3	US-08-485-551A-88	Sequence 88, Appl
913	4	14.3	28	3	US-08-471-913A-88	Sequence 88, Appl
914	4	14.3	28	3	US-08-485-264A-88	Sequence 88, Appl
915	4	14.3	28	3	US-09-177-249-97	Sequence 97, Appl
916	4	14.3	28	4	US-08-474-349A-88	Sequence 88, Appl
917	4	14.3	28	4	US-09-149-476-662	Sequence 662, App
918	4	14.3	28	4	US-08-255-208A-24	Sequence 24, Appl
919	4	14.3	28	4	US-08-470-896-88	Sequence 88, Appl
920	4	14.3	28	4	US-08-485-546A-88	Sequence 88, Appl
921	4	14.3	28	5	PCT-US92-07813-3	Sequence 3, Appli
922	4	14.3	29	2	US-08-637-759B-101	Sequence 101, App
923	4	14.3	29	2	US-08-310-912A-152	Sequence 152, App

924	4	14.3	29	3	US-09-045-632-98	Sequence 98, Appl
925	4	14.3	29	3	US-08-486-099-139	Sequence 139, App
926	4	14.3	29	3	US-08-871-355A-101	Sequence 101, App
927	4	14.3	29	3	US-08-484-223B-139	Sequence 139, App
928	4	14.3	29	3	US-08-919-597-139	Sequence 139, App
929	4	14.3	29	3	US-08-475-668A-139	Sequence 139, App
930	4	14.3	29	3	US-08-485-551A-139	Sequence 139, App
931	4	14.3	29	3	US-08-471-913A-139	Sequence 139, App
932	4	14.3	29	3	US-08-485-264A-139	Sequence 139, App
933	4	14.3	29	3	US-08-485-264A-228	Sequence 228, App
934	4	14.3	29	3	US-08-485-264A-232	Sequence 232, App
935	4	14.3	29	3	US-09-082-279B-379	Sequence 379, App
936	4	14.3	29	3	US-09-082-279B-590	Sequence 590, App
937	4	14.3	29	3	US-09-082-279B-596	Sequence 596, App
938	4	14.3	29	3	US-09-082-279B-1127	Sequence 1127, Ap
939	4	14.3	29	3	US-09-301-085-152	Sequence 152, App
940	4	14.3	29	4	US-08-474-349A-139	Sequence 139, App
941	4	14.3	29	4	US-08-474-349A-276	Sequence 276, App
942	4	14.3	29	4	US-08-474-349A-281	Sequence 281, App
943	4	14.3	29	4	US-09-201-945-101	Sequence 101, App
944	4	14.3	29	4	US-09-315-304B-379	Sequence 379, App
945	4	14.3	29	4	US-09-315-304B-590	Sequence 590, App
946	4	14.3	29	4	US-09-315-304B-596	Sequence 596, App
947	4	14.3	29	4	US-09-315-304B-1127	Sequence 1127, Ap
948	4	14.3	29	4	US-08-894-139-11	Sequence 11, Appl
949	4	14.3	29	4	US-08-470-896-139	Sequence 139, App
950	4	14.3	29	4	US-08-485-546A-139	Sequence 139, App
951	4	14.3	29	4	US-09-834-784-379	Sequence 379, App
952	4	14.3	29	4	US-09-834-784-590	Sequence 590, App
953	4	14.3	29	4	US-09-834-784-596	Sequence 596, App
954	4	14.3	29	4	US-09-834-784-1127	Sequence 1127, Ap
955	4	14.3	29	5	PCT-US95-04589-152	Sequence 152, App
956	4	14.3	30	1	US-07-859-923A-10	Sequence 10, Appl
957	4	14.3	30	1	US-08-040-548-30	Sequence 30, Appl
958	4	14.3	30	1	US-08-466-344-30	Sequence 30, Appl
959	4	14.3	30	2	US-08-484-107-10	Sequence 10, Appl
960	4	14.3	30	2	US-08-445-520B-5	Sequence 5, Appli
961	4	14.3	30	2	US-08-445-520B-7	Sequence 7, Appli
962	4	14.3	30	3	US-09-253-396A-208	Sequence 208, App
963	4	14.3	30	3	US-09-239-864A-5	Sequence 5, Appli
964	4	14.3	30	3	US-09-239-864A-7	Sequence 7, Appli
965	4	14.3	30	4	US-09-315-304B-1521	Sequence 1521, Ap
966	4	14.3	30	6	5206152-5	Patent No. 5206152
967	4	14.3	31	3	US-08-485-264A-227	Sequence 227, App
968	4	14.3	31	3	US-08-485-264A-231	Sequence 231, App
969	4	14.3	31	3	US-09-082-279B-589	Sequence 589, App
970	4	14.3	31	3	US-09-082-279B-595	Sequence 595, App
971	4	14.3	31	4	US-09-406-813-7	Sequence 7, Appli
972	4	14.3	31	4	US-09-406-813-9	Sequence 9, Appli
973	4	14.3	31	4	US-08-474-349A-275	Sequence 275, App
974	4	14.3	31	4	US-08-474-349A-280	Sequence 280, App
975	4	14.3	31	4	US-09-315-304B-589	Sequence 589, App
976	4	14.3	31	4	US-09-315-304B-595	Sequence 595, App
977	4	14.3	31	4	US-09-149-476-648	Sequence 648, App
978	4	14.3	31	4	US-09-228-990-11	Sequence 11, Appl
979	4	14.3	31	4	US-09-228-990-15	Sequence 15, Appl
980	4	14.3	31	4	US-09-228-990-28	Sequence 28, Appl

981	4	14.3	31	4	US-09-228-990-31	Sequence 31, Appl
982	4	14.3	31	4	US-09-228-990-40	Sequence 40, Appl
983	4	14.3	31	4	US-09-228-990-88	Sequence 88, Appl
984	4	14.3	31	4	US-09-690-454-158	Sequence 158, App
985	4	14.3	31	4	US-09-834-784-589	Sequence 589, App
986	4	14.3	31	4	US-09-834-784-595	Sequence 595, App
987	4	14.3	31	4	US-09-442-989-12	Sequence 12, Appl
988	4	14.3	32	6	5204326-123	Patent No. 5204326
989	4	14.3	33	1	US-07-859-923A-20	Sequence 20, Appl
990	4	14.3	33	2	US-08-484-107-20	Sequence 20, Appl
991	4	14.3	33	3	US-08-486-099-143	Sequence 143, App
992	4	14.3	33	3	US-08-486-099-144	Sequence 144, App
993	4	14.3	33	3	US-08-484-223B-143	Sequence 143, App
994	4	14.3	33	3	US-08-484-223B-144	Sequence 144, App
995	4	14.3	33	3	US-08-919-597-143	Sequence 143, App
996	4	14.3	33	3	US-08-919-597-144	Sequence 144, App
997	4	14.3	33	3	US-08-475-668A-143	Sequence 143, App
998	4	14.3	33	3	US-08-475-668A-144	Sequence 144, App
999	4	14.3	33	3	US-08-485-551A-143	Sequence 143, App
1000	4	14.3	33	3	US-08-485-551A-144	Sequence 144, App

ALIGNMENTS

RESULT 1

US-07-778-926-3

; Sequence 3, Application US/07778926

; Patent No. 5252705

; GENERAL INFORMATION:

; APPLICANT: Tatsuhiko KANMERA et al.

; TITLE OF INVENTION: Peptide Derivatives

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Wenderoth, Lind & Ponack

; STREET: 805 Fifteenth Street, N.W., #700

; CITY: Washington

; STATE: D.C.

; COUNTRY: U.S.A.

; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: MS-DOS

; SOFTWARE: DisplayWrite

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/07/778,926

; FILING DATE: 19911211

; CLASSIFICATION: 530

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER:

; FILING DATE:

; ATTORNEY/AGENT INFORMATION:

; NAME: Warren M. Cheek Jr.

; REGISTRATION NUMBER: 33,367

; REFERENCE/DOCKET NUMBER:

; TELECOMMUNICATION INFORMATION:

```

; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 32
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-3

```

```

Query Match          92.9%; Score 26; DB 1; Length 32;
Best Local Similarity 100.0%; Pred. No. 9.1e-20;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
        ||||||||||||||||||||
Db      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28

```

RESULT 2

US-07-778-926-7

; Sequence 7, Application US/07778926

; Patent No. 5252705

; GENERAL INFORMATION:

; APPLICANT: Tatsuhiko KANMERA et al.

; TITLE OF INVENTION: Peptide Derivatives

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Wenderoth, Lind & Ponack

; STREET: 805 Fifteenth Street, N.W., #700

; CITY: Washington

; STATE: D.C.

; COUNTRY: U.S.A.

; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: MS-DOS

; SOFTWARE: DisplayWrite

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/07/778,926

; FILING DATE: 19911211

; CLASSIFICATION: 530

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER:

; FILING DATE:

; ATTORNEY/AGENT INFORMATION:

; NAME: Warren M. Cheek Jr.

; REGISTRATION NUMBER: 33,367

; REFERENCE/DOCKET NUMBER:

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 202-371-8850

; TELEFAX:

; TELEX:

; INFORMATION FOR SEQ ID NO: 7:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 33 amino acid residues

; TYPE: AMINO ACID

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE:

; HYPOTHETICAL:

; ANTI-SENSE:

; FRAGMENT TYPE:

; ORIGINAL SOURCE:

; ORGANISM:

; STRAIN:

; INDIVIDUAL ISOLATE:

; DEVELOPMENTAL STAGE:

; HAPLOTYPE:

; TISSUE TYPE:

; CELL TYPE:

; CELL LINE:

; ORGANELLE:

```

; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 33
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-7

```

```

Query Match          92.9%; Score 26; DB 1; Length 33;
Best Local Similarity 100.0%; Pred. No. 9.4e-20;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIH TA 28
        |||||||||||||||||||||
Db      4 HNLGKSIQDLRRRFFLHHLIAEIH TA 29

```

RESULT 3

```

US-07-778-926-11
; Sequence 11, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:

```

; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 1
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ile, Thr, Val or
; OTHER INFORMATION: Leu"
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 34
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:


```

;      TYPE:  AMINO ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;      MOLECULE TYPE:
;      HYPOTHETICAL:
;      ANTI-SENSE:
;      FRAGMENT TYPE:
;      ORIGINAL SOURCE:
;      ORGANISM:
;      STRAIN:
;      INDIVIDUAL ISOLATE:
;      DEVELOPMENTAL STAGE:
;      HAPLOTYPE:
;      TISSUE TYPE:
;      CELL TYPE:
;      CELL LINE:
;      ORGANELLE:
;      IMMEDIATE SOURCE:
;      LIBRARY:
;      CLONE:
;      POSITION IN GENOME:
;      CHROMOSOME/SEGMENT:
;      MAP POSITION:
;      UNITS:
;      FEATURE:
;      NAME/KEY:  modified-site
;      LOCATION:  2
;      IDENTIFICATION METHOD:
;      OTHER INFORMATION:  /note= "Ile, Thr, Val or
;      OTHER INFORMATION:  Leu"
;      FEATURE:
;      NAME/KEY:  modified-site
;      LOCATION:  35
;      IDENTIFICATION METHOD:
;      OTHER INFORMATION:  /note= "Ala-OH or
;      OTHER INFORMATION:  Ala-NH2"
;      PUBLICATION INFORMATION:
;      AUTHORS:
;      TITLE:
;      JOURNAL:
;      VOLUME:
;      ISSUE:
;      PAGES:
;      DATE:
;      DOCUMENT NUMBER:
;      FILING DATE:
;      PUBLICATION DATE:
;      RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-15

```

```

Query Match          92.9%;  Score 26;  DB 1;  Length 35;
Best Local Similarity 100.0%;  Pred. No. 9.8e-20;
Matches 26;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIH TA 28
        |||||||||||||||||||||
Db      6 HNLGKSIQDLRRRFFLHHLIAEIH TA 31

```

RESULT 5

US-07-778-926-4

; Sequence 4, Application US/07778926

; Patent No. 5252705

; GENERAL INFORMATION:

; APPLICANT: Tatsuhiko KANMERA et al.

; TITLE OF INVENTION: Peptide Derivatives

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Wenderoth, Lind & Ponack

; STREET: 805 Fifteenth Street, N.W., #700

; CITY: Washington

; STATE: D.C.

; COUNTRY: U.S.A.

; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: MS-DOS

; SOFTWARE: DisplayWrite

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/07/778,926

; FILING DATE: 19911211

; CLASSIFICATION: 530

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER:

; FILING DATE:

; ATTORNEY/AGENT INFORMATION:

; NAME: Warren M. Cheek Jr.

; REGISTRATION NUMBER: 33,367

; REFERENCE/DOCKET NUMBER:

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 202-371-8850

; TELEFAX:

; TELEX:

; INFORMATION FOR SEQ ID NO: 4:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 36 amino acid residues

; TYPE: AMINO ACID

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE:

; HYPOTHETICAL:

; ANTI-SENSE:

; FRAGMENT TYPE:

; ORIGINAL SOURCE:

; ORGANISM:

; STRAIN:

; INDIVIDUAL ISOLATE:

; DEVELOPMENTAL STAGE:

; HAPLOTYPE:

; TISSUE TYPE:

; CELL TYPE:

; CELL LINE:

; ORGANELLE:

```

; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 36
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Val-OH or
; OTHER INFORMATION: Val-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-4

```

```

Query Match          92.9%; Score 26; DB 1; Length 36;
Best Local Similarity 100.0%; Pred. No. 1e-19;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
        ||||||||||||||||||||
Db      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28

```

RESULT 6

US-07-778-926-19

```

; Sequence 19, Application US/07778926
; Patent No. 5252705

```

GENERAL INFORMATION:

```

; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005

```

COMPUTER READABLE FORM:

```

; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:

```

; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 19:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 36 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 3
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ile, Thr, Val or
; OTHER INFORMATION: Leu"
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 36
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:


```

;     TYPE:  AMINO ACID
;     STRANDEDNESS:  single
;     TOPOLOGY:  linear
;     MOLECULE TYPE:
;     HYPOTHETICAL:
;     ANTI-SENSE:
;     FRAGMENT TYPE:
;     ORIGINAL SOURCE:
;     ORGANISM:
;     STRAIN:
;     INDIVIDUAL ISOLATE:
;     DEVELOPMENTAL STAGE:
;     HAPLOTYPE:
;     TISSUE TYPE:
;     CELL TYPE:
;     CELL LINE:
;     ORGANELLE:
;     IMMEDIATE SOURCE:
;     LIBRARY:
;     CLONE:
;     POSITION IN GENOME:
;     CHROMOSOME/SEGMENT:
;     MAP POSITION:
;     UNITS:
;     FEATURE:
;     NAME/KEY:  modified-site
;     LOCATION:  37
;     IDENTIFICATION METHOD:
;     OTHER INFORMATION:  /note= "Val-OH or
;     OTHER INFORMATION:  Val-NH2"
;     PUBLICATION INFORMATION:
;     AUTHORS:
;     TITLE:
;     JOURNAL:
;     VOLUME:
;     ISSUE:
;     PAGES:
;     DATE:
;     DOCUMENT NUMBER:
;     FILING DATE:
;     PUBLICATION DATE:
;     RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-8

```

```

Query Match          92.9%;  Score 26;  DB 1;  Length 37;
Best Local Similarity 100.0%;  Pred. No. 1e-19;
Matches 26;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
        ||||||||||||||||||||
Db      4 HNLGKSIQDLRRRFFLHHLIAEIHTA 29

```

```

RESULT 8
US-07-778-926-12
; Sequence 12, Application US/07778926
; Patent No. 5252705

```

; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 12:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 38 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:

```

;     UNITS:
;     FEATURE:
;     NAME/KEY:  modified-site
;     LOCATION:  1
;     IDENTIFICATION METHOD:
;     OTHER INFORMATION:  /note= "Ile, Thr, Val or
;     OTHER INFORMATION:  Leu"
;     FEATURE:
;     NAME/KEY:  modified-site
;     LOCATION:  38
;     IDENTIFICATION METHOD:
;     OTHER INFORMATION:  /note= "Val-OH or
;     OTHER INFORMATION:  Val-NH2"
;     PUBLICATION INFORMATION:
;     AUTHORS:
;     TITLE:
;     JOURNAL:
;     VOLUME:
;     ISSUE:
;     PAGES:
;     DATE:
;     DOCUMENT NUMBER:
;     FILING DATE:
;     PUBLICATION DATE:
;     RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-12

```

```

Query Match          92.9%;  Score 26;  DB 1;  Length 38;
Best Local Similarity 100.0%;  Pred. No. 1e-19;
Matches 26;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHTA 28
        ||||||||||||||||||||
Db      5 HNLGKSIQDLRRRFFLHHLIAEIHTA 30

```

RESULT 9

US-07-778-926-16

```

; Sequence 16, Application US/07778926
; Patent No. 5252705

```

GENERAL INFORMATION:

```

; APPLICANT:  Tatsuhiko KANMERA et al.
; TITLE OF INVENTION:  Peptide Derivatives
; NUMBER OF SEQUENCES:  21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE:  Wenderoth, Lind & Ponack
; STREET:  805 Fifteenth Street, N.W., #700
; CITY:  Washington
; STATE:  D.C.
; COUNTRY:  U.S.A.
; ZIP:  20005

```

COMPUTER READABLE FORM:

```

; MEDIUM TYPE:  Diskette, 5.25 inch, 500 Kb
; COMPUTER:  IBM Compatible
; OPERATING SYSTEM:  MS-DOS
; SOFTWARE:  DisplayWrite
; CURRENT APPLICATION DATA:

```


; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 39 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 2
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ile, Thr, Val or
; OTHER INFORMATION: Leu"
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 39
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Val-OH or
; OTHER INFORMATION: Val-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:


```

;     TYPE:  AMINO ACID
;     STRANDEDNESS:  single
;     TOPOLOGY:  linear
;     MOLECULE TYPE:
;     HYPOTHETICAL:
;     ANTI-SENSE:
;     FRAGMENT TYPE:
;     ORIGINAL SOURCE:
;     ORGANISM:
;     STRAIN:
;     INDIVIDUAL ISOLATE:
;     DEVELOPMENTAL STAGE:
;     HAPLOTYPE:
;     TISSUE TYPE:
;     CELL TYPE:
;     CELL LINE:
;     ORGANELLE:
;     IMMEDIATE SOURCE:
;     LIBRARY:
;     CLONE:
;     POSITION IN GENOME:
;     CHROMOSOME/SEGMENT:
;     MAP POSITION:
;     UNITS:
;     FEATURE:
;     NAME/KEY:  modified-site
;     LOCATION:  3
;     IDENTIFICATION METHOD:
;     OTHER INFORMATION:  /note= "Ile, Thr, Val or
;     OTHER INFORMATION:  Leu"
;     FEATURE:
;     NAME/KEY:  modified-site
;     LOCATION:  40
;     IDENTIFICATION METHOD:
;     OTHER INFORMATION:  /note= "Val-OH or
;     OTHER INFORMATION:  Val-NH2"
;     PUBLICATION INFORMATION:
;     AUTHORS:
;     TITLE:
;     JOURNAL:
;     VOLUME:
;     ISSUE:
;     PAGES:
;     DATE:
;     DOCUMENT NUMBER:
;     FILING DATE:
;     PUBLICATION DATE:
;     RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-20

```

```

Query Match          92.9%;  Score 26;  DB 1;  Length 40;
Best Local Similarity 100.0%;  Pred. No. 1.1e-19;
Matches    26;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIH TA 28
        |||||
Db      7 HNLGKSIQDLRRRFFLHHLIAEIH TA 32

```

RESULT 11

US-07-778-926-2

; Sequence 2, Application US/07778926

; Patent No. 5252705

; GENERAL INFORMATION:

; APPLICANT: Tatsuhiko KANMERA et al.

; TITLE OF INVENTION: Peptide Derivatives

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Wenderoth, Lind & Ponack

; STREET: 805 Fifteenth Street, N.W., #700

; CITY: Washington

; STATE: D.C.

; COUNTRY: U.S.A.

; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: MS-DOS

; SOFTWARE: DisplayWrite

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/07/778,926

; FILING DATE: 19911211

; CLASSIFICATION: 530

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER:

; FILING DATE:

; ATTORNEY/AGENT INFORMATION:

; NAME: Warren M. Cheek Jr.

; REGISTRATION NUMBER: 33,367

; REFERENCE/DOCKET NUMBER:

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 202-371-8850

; TELEFAX:

; TELEX:

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 28 amino acid residues

; TYPE: AMINO ACID

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE:

; HYPOTHETICAL:

; ANTI-SENSE:

; FRAGMENT TYPE:

; ORIGINAL SOURCE:

; ORGANISM:

; STRAIN:

; INDIVIDUAL ISOLATE:

; DEVELOPMENTAL STAGE:

; HAPLOTYPE:

; TISSUE TYPE:

; CELL TYPE:

; CELL LINE:

; ORGANELLE:

```

; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 28
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-2

```

```

Query Match          89.3%; Score 25; DB 1; Length 28;
Best Local Similarity 100.0%; Pred. No. 8.3e-19;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHT 27
        |||||
Db      3 HNLGKSIQDLRRRFFLHHLIAEIHT 27

```

RESULT 12

US-07-778-926-6

```

; Sequence 6, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:

```

; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 29 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 29
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:

; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-6

Query Match 89.3%; Score 25; DB.1; Length 29;
Best Local Similarity 100.0%; Pred. No. 8.5e-19;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 HNLGKSIQDLRRRFFLHHLIAEIHT 27
|||
Db 4 HNLGKSIQDLRRRFFLHHLIAEIHT 28

RESULT 13

US-07-778-926-10

; Sequence 10, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 30 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:

```

; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 1
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ile, Thr, Val or
; OTHER INFORMATION: Leu"
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 30
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-10

```

```

Query Match          89.3%; Score 25; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 8.8e-19;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIHT 27
        |||||||||||||||||||||
Db      5 HNLGKSIQDLRRRFFLHHLIAEIHT 29

```

```

RESULT 14
US-07-778-926-14
; Sequence 14, Application US/07778926
; Patent No. 5252705

```


; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 31 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:

```

;   UNITS:
;   FEATURE:
;   NAME/KEY:  modified-site
;   LOCATION:  2
;   IDENTIFICATION METHOD:
;   OTHER INFORMATION:  /note= "Ile, Thr, Val or
;   OTHER INFORMATION:  Leu"
;   FEATURE:
;   NAME/KEY:  modified-site
;   LOCATION:  31
;   IDENTIFICATION METHOD:
;   OTHER INFORMATION:  /note= "Ala-OH or
;   OTHER INFORMATION:  Ala-NH2"
;   PUBLICATION INFORMATION:
;   AUTHORS:
;   TITLE:
;   JOURNAL:
;   VOLUME:
;   ISSUE:
;   PAGES:
;   DATE:
;   DOCUMENT NUMBER:
;   FILING DATE:
;   PUBLICATION DATE:
;   RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-14

```

```

Query Match          89.3%;  Score 25;  DB 1;  Length 31;
Best Local Similarity 100.0%;  Pred. No. 9e-19;
Matches 25;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      3 HNLGKSIQDLRRRFFLHHLIAEIH 27
        ||||||||||||||||||||
Db      6 HNLGKSIQDLRRRFFLHHLIAEIH 30

```

RESULT 15

```

US-07-778-926-18
; Sequence 18, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT:  Tatsuhiko KANMERA et al.
; TITLE OF INVENTION:  Peptide Derivatives
; NUMBER OF SEQUENCES:  21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE:  Wenderoth, Lind & Ponack
; STREET:  805 Fifteenth Street, N.W., #700
; CITY:  Washington
; STATE:  D.C.
; COUNTRY:  U.S.A.
; ZIP:  20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE:  Diskette, 5.25 inch, 500 Kb
; COMPUTER:  IBM Compatible
; OPERATING SYSTEM:  MS-DOS
; SOFTWARE:  DisplayWrite
; CURRENT APPLICATION DATA:

```

```

; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHETICAL:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 3
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ile, Thr, Val or
; OTHER INFORMATION: Leu"
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 32
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:

```

Query Match 89.3%; Score 25; DB 1; Length 32;
Best Local Similarity 100.0%; Pred. No. 9.2e-19;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 HNLGKSIQDLRRRFFLHHLIAEIHT 27
|||||
Db 7 HNLGKSIQDLRRRFFLHHLIAEIHT 31

```

US-08-305-799A-10
; Sequence 10, Application US/08305799A
; Patent No. 5446130
; GENERAL INFORMATION:
; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:

```

; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 30 amino acids
; TYPE: Amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-305-799A-10

Query Match 85.7%; Score 24; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 8.9e-18;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 7 LGKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 17

US-08-305-799A-1

; Sequence 1, Application US/08305799A
; Patent No. 5446130
; GENERAL INFORMATION:
; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:

; LENGTH: 32 amino acids
; TYPE: Amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-305-799A-1

Query Match 85.7%; Score 24; DB 1; Length 32;
Best Local Similarity 100.0%; Pred. No. 9.4e-18;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 9 LGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 18

US-08-305-799A-2

; Sequence 2, Application US/08305799A
; Patent No. 5446130
; GENERAL INFORMATION:
; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/SOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 32 amino acids
; TYPE: Amino acid

; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-305-799A-2

Query Match 85.7%; Score 24; DB 1; Length 32;
Best Local Similarity 100.0%; Pred. No. 9.4e-18;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 LGKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 9 LGKSIQDLRRRFFLHHLIAEIHTA 32

RESULT 19

US-08-305-799A-5

; Sequence 5, Application US/08305799A
; Patent No. 5446130

; GENERAL INFORMATION:

; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991

; ATTORNEY/AGENT INFORMATION:

; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:

; INFORMATION FOR SEQ ID NO: 5:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 29 amino acids
; TYPE: Amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear

; TYPE: Amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-305-799A-3

Query Match 82.1%; Score 23; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 9e-17;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 21

US-08-305-799A-4

; Sequence 4, Application US/08305799A
; Patent No. 5446130
; GENERAL INFORMATION:
; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 30 amino acids
; TYPE: Amino acid
; STRANDEDNESS: single

; NAME/KEY: modified-site
; LOCATION: 3
; IDENTIFICATION METHOD:
; OTHER INFORMATION: /note= "Nle"
US-08-305-799A-6

Query Match 82.1%; Score 23; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 9e-17;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 23

US-08-305-799A-7

; Sequence 7, Application US/08305799A
; Patent No. 5446130
; GENERAL INFORMATION:
; APPLICANT: T. Kanmera et al.
; TITLE OF INVENTION: Parathyroid Hormone Antagonists
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Wordperfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/305,799A
; FILING DATE: September 13, 1994
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/998,150
; FILING DATE: December 29, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/684,391
; FILING DATE: April 12, 1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek, Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX: 202-371-8856
; TELEX:
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 30 amino acids
; TYPE: Amino acid


```

;      TYPE:   Amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-305-799A-9

```

Query Match 82.1%; Score 23; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 9e-17;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||
 Db 8 GKSIQDLRRRFFLHHLIAEIHTA 30

RESULT 26

US-07-969-453-1

; Sequence 1, Application US/07969453

; Patent No. 5395824

; GENERAL INFORMATION:

; APPLICANT: HIGUCHI, Naoki

APPLICANT: SAITOH, Masayuki

APPLICANT: NIWATA, Shinjiro

APPLICANT: KISO, Yoshinobu

APPLICANT: HAYASHI, Yasuhiro

TITLE OF INVENTION: Dipeptide Derivative and Prophylactic

TITLE OF INVENTION: and Therapeutic Agent for Bone Diseases Containing the

TITLE OF INVENTION: same

; NUMBER OF SEQUENCES: 1

CORRESPONDENCE ADDRESS:

ADDRESSEE: Nixon & Vanderhye, P.C.

STREET: 1100 No. 5395824th Glebe Road, 8th Floor

CITY: Arlington

STATE: Virginia

COUNTRY: USA

ZIP: 22201

COMPUTER READABLE FORM:

```
; MEDIUM TYPE: Floppy disk
```

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

```

; SOFTWARE: PatentIn Release #1.0, Version #1.25

```

; CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/969,453

FILING DATE: 19921030

CLASSIFICATION: 514

PRIOR APPLICATION DATA:

APPLICATION NUMBER: JP 303351/1991

FILING DATE: 19-NOV-1991

ATTORNEY/AGENT INFORMATION:

NAME: Crawford, Arthur R

REGISTRATION NUMBER: 25,327

REFERENCE/DOCKET NUMBER: 159-26

; TELECOMMUNICATION INFORMATION:

TELEPHONE: 703-816-4000

TELEFAX: 703-816-4100

: TELEX:

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

; LENGTH: 34 amino acids
; TYPE: AMINO ACID
; STRANDEDNESS: unknown
; TOPOLOGY: unknown
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; FEATURE:
; NAME/KEY: Peptide
; LOCATION: 1..34
US-07-969-453-1

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | | | | | |
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 27

US-07-915-247A-4

; Sequence 4, Application US/07915247A
; Patent No. 5589452
; GENERAL INFORMATION:
; APPLICANT: Krstenansky, John L.
; APPLICANT: Nestor Jr., John J.
; APPLICANT: Ho, Teresa H.
; APPLICANT: Vickery, Brian H.
; APPLICANT: Bach, Chinh T.
; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND
; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE
; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/915,247A
; FILING DATE: 19920714
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Simonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593

; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal
US-07-915-247A-4

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
|||
Db 12 GKSIQDLRRRFFLHHLIAEIH TA 34

RESULT 28

US-08-443-863-4

; Sequence 1, Application US/08443863
; Patent No. 5693616
; GENERAL INFORMATION:
; APPLICANT: Krstenansky, John L.
; APPLICANT: Nestor Jr., John J.
; APPLICANT: Ho, Teresa H.
; APPLICANT: Vickery, Brian H.
; APPLICANT: Bach, Chinh T.
; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND
; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE
; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/443,863
; FILING DATE: 14-JUL-1992
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529

; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal
US-08-443-863-4

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | |
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 29

US-08-448-070-4

; Sequence 4, Application US/08448070
; Patent No. 5695955
; GENERAL INFORMATION:
; APPLICANT: Krstenansky, John L.
; APPLICANT: Nestor Jr., John J.
; APPLICANT: Ho, Teresa H.
; APPLICANT: Vickery, Brian H.
; APPLICANT: Bach, Chinh T.
; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND
; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE
; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/448,070
; FILING DATE: 14-JUL-1992
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:

; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal
US-08-448-070-4

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
|||||||
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 30

US-08-449-500-4

; Sequence 4, Application US/08449500

; Patent No. 5798225

; GENERAL INFORMATION:

; APPLICANT: Krstenansky, John L.

; APPLICANT: Nestor Jr., John J.

; APPLICANT: Ho, Teresa H.

; APPLICANT: Vickery, Brian H.

; APPLICANT: Bach, Chinh T.

; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND

; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE

; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS

; NUMBER OF SEQUENCES: 86

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.

; STREET: 3401 Hillview Ave.

; CITY: Palo Alto

; STATE: CA

; COUNTRY: USA

; ZIP: 94303

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/449,500

; FILING DATE: 18-JAN-1994

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Schmonsees, William

; REGISTRATION NUMBER: 31,796

; REFERENCE/DOCKET NUMBER: 27610-P1

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-855-6593

; TELEFAX: 415-496-3529

; INFORMATION FOR SEQ ID NO: 4:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal
US-08-449-500-4

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
|||
Db 12 GKSIQDLRRRFFLHHLIAEIH TA 34

RESULT 31

US-08-449-317A-4

; Sequence 4, Application US/08449317A
; Patent No. 5807823
; GENERAL INFORMATION:
; APPLICANT: Vickery, Brian H.
; TITLE OF INVENTION: METHOD FOR TREATMENT OF CORTICOSTEROID
; TITLE OF INVENTION: INDUCED OSTEOPENIA
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/449,317A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610-P2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal

US-08-449-317A-4

Query Match 82.1%; Score 23; DB 1; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
||||||||||||||||
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 32

US-08-477-022-4

; Sequence 4, Application US/08477022
; Patent No. 5821225
; GENERAL INFORMATION:
; APPLICANT: Vickery, Brian H.
; TITLE OF INVENTION: METHOD FOR TREATMENT OF CORTICOSTEROID
; TITLE OF INVENTION: INDUCED OSTEOPENIA
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/477,022
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610-P2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal

US-08-477-022-4

Query Match 82.1%; Score 23; DB 2; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
| | | | | | | | | | | | | | | |
Db 12 GKSIQDLRRRFFLHHLIAEIH TA 34

RESULT 33

US-08-449-447-4

; Sequence 4, Application US/08449447

; Patent No. 5840837

; GENERAL INFORMATION:

; APPLICANT: Krstenansky, John L.

; APPLICANT: Nestor Jr., John J.

; APPLICANT: Ho, Teresa H.

; APPLICANT: Vickery, Brian H.

; APPLICANT: Bach, Chinh T.

; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND

; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE

; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS

; NUMBER OF SEQUENCES: 86

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.

; STREET: 3401 Hillview Ave.

; CITY: Palo Alto

; STATE: CA

; COUNTRY: USA

; ZIP: 94303

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/449,447

; FILING DATE: 18-JAN-1994

; CLASSIFICATION: 530

; ATTORNEY/AGENT INFORMATION:

; NAME: Schmonsees, William

; REGISTRATION NUMBER: 31,796

; REFERENCE/DOCKET NUMBER: 27610-P1

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-855-6593

; TELEFAX: 415-496-3529

; INFORMATION FOR SEQ ID NO: 4:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 34 amino acids

; TYPE: amino acid

; TOPOLOGY: linear

; MOLECULE TYPE: peptide

; HYPOTHETICAL: NO

; FRAGMENT TYPE: N-terminal

US-08-449-447-4

Query Match 82.1%; Score 23; DB 2; Length 34;

Best Local Similarity 100.0%; Pred. No. 1e-16;

Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28

Db |||||
12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 34

US-08-184-328-4

; Sequence 4, Application US/08184328
; Patent No. 5874086
; GENERAL INFORMATION:
; APPLICANT: Krstenansky, John L.
; APPLICANT: Nestor Jr., John J.
; APPLICANT: Ho, Teresa H.
; APPLICANT: Vickery, Brian H.
; APPLICANT: Bach, Chinh T.
; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND
; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE
; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/184,328
; FILING DATE: 18-JAN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610-P1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; FRAGMENT TYPE: N-terminal
US-08-184-328-4

Query Match 82.1%; Score 23; DB 2; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
 |||||

Db

12 GKSIQDLRRRFFLHHLIAEIHTA 34

RESULT 35

US-08-521-097-4

; Sequence 4, Application US/08521097
; Patent No. 5977070
; GENERAL INFORMATION:
; APPLICANT: Krstenansky, John L.
; APPLICANT: Nestor Jr., John J.
; APPLICANT: Ho, Teresa H.
; APPLICANT: Vickery, Brian H.
; APPLICANT: Bach, Chinh T.
; TITLE OF INVENTION: ANALOGS OF PARATHYROID HORMONE AND
; TITLE OF INVENTION: PARATHYROID HORMONE RELATED PEPTIDE: SYNTHESIS AND USE
; TITLE OF INVENTION: FOR THE TREATMENT OF OSTEOPOROSIS
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patent Dept., Syntex (U.S.A.), Inc.
; STREET: 3401 Hillview Ave.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/521,097
; FILING DATE: 29-AUG-1995
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/184,328
; FILING DATE: 18-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 27610-P1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-6593
; TELEFAX: 415-496-3529
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHEETICAL: NO
; FRAGMENT TYPE: N-terminal
US-08-521-097-4

Query Match 82.1%; Score 23; DB 2; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKS IQDLRRRFFLHHLIAEIH TA 28
 | | | | | | | | | | | | | | | |
Db 12 GKS IQDLRRRFFLHHLIAEIH TA 34

RESULT 36

```

; Sequence 2, Application US/09228990
; Patent No. 6472505
; GENERAL INFORMATION:
; APPLICANT: Condon, Stephen M.
; APPLICANT: Morize, Isabelle
; TITLE OF INVENTION: PEPTIDE PARATHYROID HORMONE ANALOGS
; NUMBER OF SEQUENCES: 88
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, Mailstop 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/228,990
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/046,472
; FILING DATE: 14-MAY-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Martin Esq., Michael B.
; REGISTRATION NUMBER: 37,521
; REFERENCE/DOCKET NUMBER: A2678B-WO
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610) 454-2793
; TELEFAX: (610) 454-3808
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
; FRAGMENT TYPE: N-terminal
US-09-228-990-2

```

Query Match: 82.1%; Score 23; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKS IQDLRRRFFLHHLIAEIH TA 28
 | | | | | | | | | | | | | | |
Db 12 GKS IQDLRRRFFLHHLIAEIH TA 34

RESULT 37

US-09-442-989-27

; Sequence 27, Application US/09442989
 ; Patent No. 6569993
 ; GENERAL INFORMATION:
 ; APPLICANT: Sledeski, Adam W.
 ; APPLICANT: Mencil, James J.
 ; TITLE OF INVENTION: PROCESS FOR THE PREPARATION OF RESIN-BOUND CYCLIC
 ; TITLE OF INVENTION: PEPTIDES
 ; FILE REFERENCE: A3113B-US
 ; CURRENT APPLICATION NUMBER: US/09/442,989
 ; CURRENT FILING DATE: 1999-11-18
 ; EARLIER APPLICATION NUMBER: 60/081,897
 ; EARLIER FILING DATE: 1998-04-15
 ; NUMBER OF SEQ ID NOS: 46
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 27
 ; LENGTH: 34
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 US-09-442-989-27

Query Match 82.1%; Score 23; DB 4; Length 34;
 Best Local Similarity 100.0%; Pred. No. 1e-16;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIH TA 28
 |||||
 Db 12 GKSIQDLRRRFFLHHLIAEIH TA 34

RESULT 38

US-08-903-497A-2

; Sequence 2, Application US/08903497A
 ; Patent No. 6147186
 ; GENERAL INFORMATION:
 ; APPLICANT: Gardella, Thomas J.
 ; APPLICANT: J ppner, Harald
 ; TITLE OF INVENTION: No. 6147186el Parathyroid Hormone-Related
 ; TITLE OF INVENTION: Peptide Analogs
 ; NUMBER OF SEQUENCES: 7
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Sterne, Kessler, Goldstein and Fox P.L.L.C.
 ; STREET: 1100 New York Avenue, N.W., Suite 600
 ; CITY: Washington
 ; STATE: DC
 ; COUNTRY: USA
 ; ZIP: 20005
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/903,497A

```

; FILING DATE: 30-JUL-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/025,471
; FILING DATE: 31-JUL-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Markowicz, Karen R.
; REGISTRATION NUMBER: 36,351
; REFERENCE/DOCKET NUMBER: 0609.4310001/JAG/KRM
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 36 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: MODIFIED-SITE
; LOCATION: 36
; OTHER INFORMATION: CARBOXY-TERMINAL MODIFICATION OF TYROSINE-
; OTHER INFORMATION: AMIDE
US-08-903-497A-2

```

```

Query Match          82.1%; Score 23; DB 3; Length 36;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      6 GKSIQDLRRRFFLHHLIAEIHTA 28
        |||||
Db     12 GKSIQDLRRRFFLHHLIAEIHTA 34

```

RESULT 39

US-09-635-076-2

```

; Sequence 2, Application US/09635076
; Patent No. 6362163
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; APPLICANT: J ppner, Harald
; TITLE OF INVENTION: No. 6362163el Parathyroid Hormone-Related
; TITLE OF INVENTION: Peptide Analogs
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein and Fox P.L.L.C.
; STREET: 1100 New York Avenue, N.W., Suite 600
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30

```

```

; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,076
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/903,497
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Markowicz, Karen R.
; REGISTRATION NUMBER: 36,351
; REFERENCE/DOCKET NUMBER: 0609.4310001/JAG/KRM
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 36 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: MODIFIED-SITE
; LOCATION: 36
; OTHER INFORMATION: CARBOXY-TERMINAL MODIFICATION OF TYROSINE-
; OTHER INFORMATION: AMIDE
US-09-635-076-2

```

```

Query Match          82.1%; Score 23; DB 4; Length 36;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy      6 GKSIQDLRRRFFLHHLIAEIHTA 28
        |||||
Db     12 GKSIQDLRRRFFLHHLIAEIHTA 34

```

RESULT 40

```

US-09-449-632-23
; Sequence 23, Application US/09449632
; Patent No. 6541220
; GENERAL INFORMATION:
; APPLICANT: Jppner, Harald
; APPLICANT: Ruben, David A.
; TITLE OF INVENTION: PTH1R and PTH3R Receptors, Methods and Uses Thereof
; FILE REFERENCE: 0609.4740001/SRL/M-G
; CURRENT APPLICATION NUMBER: US/09/449,632
; CURRENT FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: US 60/110,467
; PRIOR FILING DATE: 1998-11-30
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 23
; LENGTH: 36
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-449-632-23

```

Query Match 82.1%; Score 23; DB 4; Length 36;
Best Local Similarity 100.0%; Pred. No. 1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 6 GKSIQDLRRRFFLHHLIAEIHTA 28
| | | | | | | | | | | | | | | | | | | | | |
Db 12 GKSIQDLRRRFFLHHLIAEIHTA 34

Search completed: January 14, 2004, 10:43:39
Job time : 11.5078 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 14, 2004, 10:28:19 ; Search time 8.2866 Seconds
(without alignments)
324.949 Million cell updates/sec

Title: US-09-843-221A-169
Perfect score: 28
Sequence: 1 LLHNLGKSIQDLRRRFFLHHLIAEIH TA 28

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283308 seqs, 96168682 residues

Word size : 0

Total number of hits satisfying chosen parameters: 3709

Minimum DB seq length: 28
Maximum DB seq length: 40

Post-processing: Listing first 1000 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	%		DB	ID	Description
		Query	Match Length			
1	4	14.3	30	2	A05012	hypothetical prote
2	4	14.3	31	1	S34504	photosystem I prot
3	4	14.3	33	2	PQ0416	RNA-directed RNA p
4	4	14.3	34	2	S36843	defensin NP-6 - ra
5	4	14.3	34	2	A39888	synapsin I - rat (
6	4	14.3	35	2	S20042	hypothetical prote
7	4	14.3	35	2	E64108	protein V6, trunca
8	4	14.3	35	2	D82607	hypothetical prote
9	4	14.3	36	1	JU0352	4.6K protein - Chl
10	4	14.3	36	2	C60071	pancreatic hormone
11	4	14.3	36	2	S17507	cytokine - rabbit
12	4	14.3	38	2	S04627	glutathione transf
13	4	14.3	38	2	B39888	synapsin I - bovin

14	4	14.3	38	2	A38335	58K tubulointersti
15	4	14.3	38	2	E86077	hypothetical prote
16	4	14.3	39	2	S67938	hypothetical prote
17	3	10.7	28	1	G9BPSV	gene 9 protein - s
18	3	10.7	28	2	S41774	ubiquinol-cytochro
19	3	10.7	28	2	S66436	allophycocyanin al
20	3	10.7	28	2	C33948	glutathione transf
21	3	10.7	28	2	A31859	deoxycytidine kina
22	3	10.7	28	2	B54257	deoxynucleoside ki
23	3	10.7	28	2	D41912	T-cell receptor be
24	3	10.7	28	2	I50169	alpha-1 type-1 col
25	3	10.7	28	2	S21231	calcium-binding pr
26	3	10.7	28	2	A05296	fibrinogen alpha c
27	3	10.7	28	2	B35577	cell adhesion rece
28	3	10.7	28	2	PN0047	signal transductio
29	3	10.7	28	2	I48178	orphan receptor -
30	3	10.7	28	2	B56779	tetM 5'-region lea
31	3	10.7	28	2	G69384	conserved hypothet
32	3	10.7	28	2	A69259	hypothetical prote
33	3	10.7	28	2	T14905	hypothetical prote
34	3	10.7	28	2	JQ0272	hypothetical 3K pr
35	3	10.7	28	2	S07826	venom protein - Am
36	3	10.7	28	2	I54183	cell adhesion regu
37	3	10.7	28	2	JQ1035	hypothetical 3.2K
38	3	10.7	28	2	S51593	myrB protein - Mic
39	3	10.7	28	4	JN0014	GABA(A) receptor a
40	3	10.7	29	1	A55527	pyrroloquinoline q
41	3	10.7	29	2	A61509	islet amyloid poly
42	3	10.7	29	2	S10725	calmodulin-binding
43	3	10.7	29	2	A61166	endometrial proges
44	3	10.7	29	2	F42075	finger protein (cl
45	3	10.7	29	2	S42642	probable rhicadhes
46	3	10.7	29	2	A35121	hypothetical prote
47	3	10.7	29	2	S32730	homeotic protein -
48	3	10.7	29	2	S32734	homeotic protein -
49	3	10.7	29	2	S32733	homeotic protein -
50	3	10.7	29	2	B81136	hypothetical prote
51	3	10.7	29	2	B48363	2-hydroxyglutaryl-
52	3	10.7	29	2	S14099	12-alpha-hydroxyst
53	3	10.7	29	2	T34643	hypothetical prote
54	3	10.7	29	2	S02200	prolamin alpha-1 -
55	3	10.7	29	2	S68094	2,3-dihydroxybenzo
56	3	10.7	29	2	I50382	c-mil protein - ch
57	3	10.7	29	2	A27688	mammary-derived gr
58	3	10.7	29	2	B85840	hypothetical prote
59	3	10.7	29	2	C85840	hypothetical prote
60	3	10.7	29	2	E89904	hypothetical prote
61	3	10.7	29	2	PQ0782	NADH2 dehydrogenas
62	3	10.7	29	2	A59479	NADP phosphatase I
63	3	10.7	30	1	IRTRC3	protamine CIII, ma
64	3	10.7	30	1	IRTRC2	protamine Ia - rai
65	3	10.7	30	1	IRTR78	protamine CIII, mi
66	3	10.7	30	1	IRTR4	protamine pTP4 - r
67	3	10.7	30	1	CLHRY2	protamine YII - Pa
68	3	10.7	30	1	CLHR2A	protamine YII - At
69	3	10.7	30	2	S11131	NADH2 dehydrogenas
70	3	10.7	30	2	A39089	hydrogenase (EC 1.

71	3	10.7	30	2	A28562	glutathione transf
72	3	10.7	30	2	I55427	aspartate transami
73	3	10.7	30	2	A44598	endo-1,4-beta-xyla
74	3	10.7	30	2	A27634	major fecal allerg
75	3	10.7	30	2	B27634	major fecal allerg
76	3	10.7	30	2	I77411	renin-2 - mouse (f
77	3	10.7	30	2	S24979	proteinase inhibit
78	3	10.7	30	2	C59076	defensin alpha-3 -
79	3	10.7	30	2	I68109	interferon alpha-W
80	3	10.7	30	2	PD0013	cAMP response elem
81	3	10.7	30	2	S11613	ribosomal protein
82	3	10.7	30	2	S11617	ribosomal protein
83	3	10.7	30	2	S07217	ribosomal protein
84	3	10.7	30	2	PC4172	profilin - rat (fr
85	3	10.7	30	2	S21153	calcium-binding pr
86	3	10.7	30	2	A34461	heat shock protein
87	3	10.7	30	2	A44913	34K core flagella
88	3	10.7	30	2	B24987	regulatory protein
89	3	10.7	30	2	B44314	intracisternal A p
90	3	10.7	30	2	I58367	gag protein - mous
91	3	10.7	30	2	S69352	N-methylhydantoin
92	3	10.7	30	2	B49292	GDP dissociation i
93	3	10.7	30	2	B95126	hypothetical prote
94	3	10.7	30	2	H72312	hypothetical prote
95	3	10.7	30	2	B81956	hypothetical prote
96	3	10.7	30	2	E82294	hypothetical prote
97	3	10.7	30	2	A82137	hypothetical prote
98	3	10.7	30	2	S73316	photosystem I chai
99	3	10.7	30	2	S78303	photosystem I prot
100	3	10.7	30	2	T07505	photosystem I prot
101	3	10.7	30	2	S78702	protein YAL037c-a
102	3	10.7	30	2	A32946	trypsin-like serin
103	3	10.7	30	2	S01811	hemoglobin AIV' -
104	3	10.7	30	2	PL0189	Ig light chain - s
105	3	10.7	30	2	B36277	actin-capping prot
106	3	10.7	30	2	B60211	enkephalin-degradi
107	3	10.7	30	2	A34874	transforming prote
108	3	10.7	30	2	D81532	hypothetical prote
109	3	10.7	30	2	H97596	hypothetical prote
110	3	10.7	31	1	A28805	leiurotoxin I [val
111	3	10.7	31	1	A49078	leiurotoxin I-like
112	3	10.7	31	1	CLHRZ	protamine Z - Paci
113	3	10.7	31	1	CLHRZA	protamine Z - Atla
114	3	10.7	31	1	CLHRY1	protamine YI - Pac
115	3	10.7	31	1	CLHR1A	protamine YI - Atl
116	3	10.7	31	1	JU0351	3.6K protein - Chl
117	3	10.7	31	2	PW0053	angiotensin conver
118	3	10.7	31	2	S44471	glucagon G1 - Nort
119	3	10.7	31	2	S44472	glucagon G2 - Nort
120	3	10.7	31	2	A25210	toxin III homolog
121	3	10.7	31	2	I51349	protamine - rainbo
122	3	10.7	31	2	A36162	neutrophil-activat
123	3	10.7	31	2	C95010	hypothetical prote
124	3	10.7	31	2	G95018	hypothetical prote
125	3	10.7	31	2	E95140	hypothetical prote
126	3	10.7	31	2	S00685	hypothetical prote
127	3	10.7	31	2	E64562	hypothetical prote

128	3	10.7	31	2	C71845	hypothetical prote
129	3	10.7	31	2	C81193	hypothetical prote
130	3	10.7	31	2	B81027	lacto-N-neotetraos
131	3	10.7	31	2	E82290	hypothetical prote
132	3	10.7	31	2	S78335	hypothetical prote
133	3	10.7	31	2	A25629	cytochrome-c oxida
134	3	10.7	31	2	S56757	link protein - hum
135	3	10.7	31	2	C84082	hypothetical prote
136	3	10.7	31	2	B81544	hypothetical prote
137	3	10.7	31	2	F82565	hypothetical prote
138	3	10.7	31	2	H82533	hypothetical prote
139	3	10.7	31	2	G97596	hypothetical prote
140	3	10.7	32	1	TCEE	calcitonin - Japan
141	3	10.7	32	1	TCON2	calcitonin 2 - soc
142	3	10.7	32	1	TCON2C	calcitonin 2 - chu
143	3	10.7	32	1	TCON2P	calcitonin 2 - pin
144	3	10.7	32	1	TCON3	calcitonin 3 - coh
145	3	10.7	32	1	YZPK1	protamine I - nort
146	3	10.7	32	1	SLONA1	protamine AI - chu
147	3	10.7	32	1	IRTR2	protamine II - rai
148	3	10.7	32	2	C56649	streptomycin B-lik
149	3	10.7	32	2	PQ0373	chitinase (EC 3.2.
150	3	10.7	32	2	S39628	probable urease (E
151	3	10.7	32	2	S21547	T-cell receptor al
152	3	10.7	32	2	C26889	T-cell receptor be
153	3	10.7	32	2	E26889	T-cell receptor be
154	3	10.7	32	2	I51089	protamine - Japane
155	3	10.7	32	2	F24970	protamine 3a - rai
156	3	10.7	32	2	B02669	protamine (salmine
157	3	10.7	32	2	A24047	gap junction prote
158	3	10.7	32	2	S21232	calcium-binding pr
159	3	10.7	32	2	A29743	translation initia
160	3	10.7	32	2	I48415	heat shock factor
161	3	10.7	32	2	B34624	flagellin, 24K - M
162	3	10.7	32	2	S30754	genome polyprotein
163	3	10.7	32	2	S45670	Nef protein - huma
164	3	10.7	32	2	S36841	antibacterial pept
165	3	10.7	32	2	C46107	polyomavirus enhan
166	3	10.7	32	2	S57228	zen protein (clone
167	3	10.7	32	2	F95022	hypothetical prote
168	3	10.7	32	2	B95081	hypothetical prote
169	3	10.7	32	2	D95225	hypothetical prote
170	3	10.7	32	2	D86901	hypothetical prote
171	3	10.7	32	2	B70257	hypothetical prote
172	3	10.7	32	2	H81215	hypothetical prote
173	3	10.7	32	2	D82353	hypothetical prote
174	3	10.7	32	2	B82269	hypothetical prote
175	3	10.7	32	2	D82389	hypothetical prote
176	3	10.7	32	2	H64040	hypothetical prote
177	3	10.7	32	2	S22304	hypothetical prote
178	3	10.7	32	2	A05015	hypothetical prote
179	3	10.7	32	2	T39322	very hypothetical
180	3	10.7	32	2	A60363	apolipophorin III
181	3	10.7	32	2	S28398	t-complex protein
182	3	10.7	32	2	A14059	alpha-amylase (EC
183	3	10.7	32	2	S58165	cytochrome b - nor
184	3	10.7	32	2	G84111	hypothetical prote

185	3	10.7	32	2	G82629	hypothetical prote
186	3	10.7	32	2	JC5802	ovulation stimulat
187	3	10.7	32	4	B34962	hypothetical prote
188	3	10.7	33	1	IRTR1B	protamine IB - rai
189	3	10.7	33	1	IRTR1A	protamine IA - rai
190	3	10.7	33	1	IRTR59	protamine CII - ra
191	3	10.7	33	1	IRTR42	protamine 2c - rai
192	3	10.7	33	1	Z9BPIK	coat protein C cha
193	3	10.7	33	1	S66579	hypothetical prote
194	3	10.7	33	2	A60465	cytochrome P450 D1
195	3	10.7	33	2	S22601	creatine kinase (E
196	3	10.7	33	2	D61545	plasmin (EC 3.4.21
197	3	10.7	33	2	I52219	c-ras-Ki-2 protein
198	3	10.7	33	2	I53221	K-ras protein - hu
199	3	10.7	33	2	PC2300	gaegurin 1 - Korea
200	3	10.7	33	2	I56451	relaxin - hamadrya
201	3	10.7	33	2	A60506	big gastrin - Nort
202	3	10.7	33	2	A05136	neurotoxin IX - sc
203	3	10.7	33	2	PH1741	Ig heavy chain V r
204	3	10.7	33	2	I53480	melanoma antigen-s
205	3	10.7	33	2	A21211	protamine TP14 - r
206	3	10.7	33	2	C21211	protamine TP16 - r
207	3	10.7	33	2	D21211	protamine TP17 - r
208	3	10.7	33	2	S00710	protamine CII - ch
209	3	10.7	33	2	E21211	protamine TP21 - r
210	3	10.7	33	2	A26762	protamine (mugilin
211	3	10.7	33	2	B26762	protamine (mugilin
212	3	10.7	33	2	T01070	protamine - rainbo
213	3	10.7	33	2	I49415	gamma4-crystallin
214	3	10.7	33	2	I46600	myosin - pig (frag
215	3	10.7	33	2	S70495	ferritin light cha
216	3	10.7	33	2	S23321	hypothetical prote
217	3	10.7	33	2	S08089	gene IX protein -
218	3	10.7	33	2	A87213	hypothetical prote
219	3	10.7	33	2	B87660	hypothetical prote
220	3	10.7	33	2	F84163	hypothetical prote
221	3	10.7	33	2	A70159	hypothetical prote
222	3	10.7	33	2	G70247	hypothetical prote
223	3	10.7	33	2	G64625	hypothetical prote
224	3	10.7	33	2	A81046	cryptic plasmid pr
225	3	10.7	33	2	G81891	hypothetical prote
226	3	10.7	33	2	H82216	hypothetical prote
227	3	10.7	33	2	B82184	hypothetical prote
228	3	10.7	33	2	E82135	hypothetical prote
229	3	10.7	33	2	B44644	neurotoxin-associa
230	3	10.7	33	2	A41822	antimicrobial pept
231	3	10.7	33	2	PC2055	lectin - cornucopi
232	3	10.7	33	2	S69595	gene 4f-rnp protei
233	3	10.7	33	2	S77568	dipeptidyl-peptida
234	3	10.7	33	2	I57455	hypothetical prote
235	3	10.7	33	2	PS0433	dystrophin - rabbi
236	3	10.7	33	2	I53301	gene GHR protein -
237	3	10.7	34	1	TYTUY2	protamine Y2 - blu
238	3	10.7	34	1	TYTUZ1	protamine Z1 - blu
239	3	10.7	34	1	TYTUZ2	protamine Z2 - blu
240	3	10.7	34	2	A60686	cytochrome-c oxida
241	3	10.7	34	2	T46886	E2 branched-chain

242	3	10.7	34	2	A44166	alpha-galactosidas
243	3	10.7	34	2	S57865	N4- (beta-N-acetylgl
244	3	10.7	34	2	PS0336	xylose isomerase (
245	3	10.7	34	2	C42320	transforming growth
246	3	10.7	34	2	JN0582	protamine (scombr
247	3	10.7	34	2	S20439	protamine - yellow
248	3	10.7	34	2	JX0203	protamine Z1 - str
249	3	10.7	34	2	JX0204	protamine Z2 - str
250	3	10.7	34	2	I49411	gamma-crystallin-2
251	3	10.7	34	2	I49410	gamma-crystallin-1
252	3	10.7	34	2	I67425	retinoic acid rece
253	3	10.7	34	2	T06342	photosystem I prot
254	3	10.7	34	2	B26021	traY protein - Esc
255	3	10.7	34	2	S78345	hypothetical prote
256	3	10.7	34	2	I67424	hERR-2 homolog - r
257	3	10.7	34	2	I65264	homeotic protein H
258	3	10.7	34	2	D95208	hypothetical prote
259	3	10.7	34	2	C70227	hypothetical prote
260	3	10.7	34	2	B70230	hypothetical prote
261	3	10.7	34	2	G70248	hypothetical prote
262	3	10.7	34	2	E70250	hypothetical prote
263	3	10.7	34	2	E70255	hypothetical prote
264	3	10.7	34	2	E64695	hypothetical prote
265	3	10.7	34	2	H81883	hypothetical prote
266	3	10.7	34	2	G81199	hypothetical prote
267	3	10.7	34	2	F81044	hypothetical prote
268	3	10.7	34	2	G82109	hypothetical prote
269	3	10.7	34	2	B82449	hypothetical prote
270	3	10.7	34	2	S77646	hypothetical prote
271	3	10.7	34	2	T36735	hypothetical prote
272	3	10.7	34	2	S34265	hypothetical prote
273	3	10.7	34	2	A60110	repetitive protein
274	3	10.7	34	2	S35723	MUC1 protein - hum
275	3	10.7	34	2	H81600	hypothetical prote
276	3	10.7	34	2	C82819	hypothetical prote
277	3	10.7	34	2	C82764	hypothetical prote
278	3	10.7	34	2	A85974	hypothetical prote
279	3	10.7	34	2	B97032	transcription regu
280	3	10.7	34	2	S12554	hydroxymethylgluta
281	3	10.7	35	2	S29726	lignin peroxidase
282	3	10.7	35	2	S29725	lignin peroxidase
283	3	10.7	35	2	A54257	deoxynucleoside ki
284	3	10.7	35	2	B49046	T-cell receptor be
285	3	10.7	35	2	A29663	histone H4 - starf
286	3	10.7	35	2	S32679	ribosomal protein
287	3	10.7	35	2	E48401	ribosomal protein
288	3	10.7	35	2	S74556	photosystem II psb
289	3	10.7	35	2	PC2296	V3 domain peptide
290	3	10.7	35	2	PC2293	V3 domain peptide
291	3	10.7	35	2	PC2294	V3 domain peptide
292	3	10.7	35	2	PC2295	V3 domain peptide
293	3	10.7	35	2	D42957	orf4 3' of cooS -
294	3	10.7	35	2	I78526	Sim protein - huma
295	3	10.7	35	2	I48925	homeobox protein -
296	3	10.7	35	2	G95014	hypothetical prote
297	3	10.7	35	2	E95098	hypothetical prote
298	3	10.7	35	2	E90642	hypothetical prote

299	3	10.7	35	2	H72387	hypothetical prote
300	3	10.7	35	2	F81179	hypothetical prote
301	3	10.7	35	2	T42121	hypothetical prote
302	3	10.7	35	2	C82330	hypothetical prote
303	3	10.7	35	2	H82229	hypothetical prote
304	3	10.7	35	2	H82103	hypothetical prote
305	3	10.7	35	2	A82090	hypothetical prote
306	3	10.7	35	2	S58708	neutral phosphatas
307	3	10.7	35	2	B36912	hypothetical prote
308	3	10.7	35	2	D69330	hypothetical prote
309	3	10.7	35	2	T11812	hypothetical prote
310	3	10.7	35	2	S15444	hypothetical prote
311	3	10.7	35	2	T15713	hypothetical prote
312	3	10.7	35	2	A38107	mammalian toxin -
313	3	10.7	35	2	S44360	integrin beta-3 -
314	3	10.7	35	2	S49309	oncofetal protein
315	3	10.7	35	2	B81570	hypothetical prote
316	3	10.7	35	2	C82535	hypothetical prote
317	3	10.7	35	2	E85493	hypothetical prote
318	3	10.7	35	2	A64733	hypothetical prote
319	3	10.7	35	2	AE0612	hypothetical prote
320	3	10.7	36	1	A61132	pancreatic hormone
321	3	10.7	36	1	D61132	pancreatic hormone
322	3	10.7	36	1	C61132	pancreatic hormone
323	3	10.7	36	1	PCPG	pancreatic hormone
324	3	10.7	36	1	B61132	pancreatic hormone
325	3	10.7	36	1	PCBO	pancreatic hormone
326	3	10.7	36	2	D60840	glucagon II - Euro
327	3	10.7	36	2	JQ0365	pancreatic hormone
328	3	10.7	36	2	A59064	egg-laying hormone
329	3	10.7	36	2	I84732	cytotoxic T-lympho
330	3	10.7	36	2	B44400	myosin heavy chain
331	3	10.7	36	2	I46593	myosin - pig (frag
332	3	10.7	36	2	A60602	annexin II - golde
333	3	10.7	36	2	T14522	photosystem I prot
334	3	10.7	36	2	F45193	zinc finger protei
335	3	10.7	36	2	S20679	Mx protein - pig (
336	3	10.7	36	2	T36994	probable transposa
337	3	10.7	36	2	H48110	RNA recognition mo
338	3	10.7	36	2	C95218	conserved domain p
339	3	10.7	36	2	H70175	hypothetical prote
340	3	10.7	36	2	H70251	hypothetical prote
341	3	10.7	36	2	S16552	hypothetical prote
342	3	10.7	36	2	A38729	pyruvate decarboxy
343	3	10.7	36	2	S70092	hypothetical prote
344	3	10.7	36	2	S46227	hypothetical prote
345	3	10.7	36	2	A69287	hypothetical prote
346	3	10.7	36	2	C69327	hypothetical prote
347	3	10.7	36	2	JA0173	basic peptide - wi
348	3	10.7	36	2	T22263	hypothetical prote
349	3	10.7	36	2	S43284	gallinacin - chick
350	3	10.7	36	2	A57443	guanylate cyclase
351	3	10.7	36	2	A83870	hypothetical prote
352	3	10.7	36	2	A81740	hypothetical prote
353	3	10.7	36	2	B82827	hypothetical prote
354	3	10.7	36	2	A82598	hypothetical prote
355	3	10.7	36	2	A61316	largomycin - Strep

356	3	10.7	36	2	C85910	unknown protein en
357	3	10.7	37	1	R5RZ36	ribosomal protein
358	3	10.7	37	1	R5NT36	ribosomal protein
359	3	10.7	37	1	R5LV36	ribosomal protein
360	3	10.7	37	1	R5PM81	ribosomal protein
361	3	10.7	37	1	R5BS36	ribosomal protein
362	3	10.7	37	1	WRBP65	early protein gp5
363	3	10.7	37	1	WRBPF7	early protein gp5
364	3	10.7	37	2	S14892	crystallin (clone
365	3	10.7	37	2	S48656	fusicoccin recepto
366	3	10.7	37	2	B35545	T-kininogenase (EC
367	3	10.7	37	2	S23145	tissue kallikrein-
368	3	10.7	37	2	S39367	proteinase omega -
369	3	10.7	37	2	S06217	transforming prote
370	3	10.7	37	2	F53578	esculentin 2b - ed
371	3	10.7	37	2	E53578	esculentin 2a - ed
372	3	10.7	37	2	S05037	insulinoma amyloid
373	3	10.7	37	2	A60963	charybdotoxin 1 [v
374	3	10.7	37	2	B60963	charybdotoxin 2 -
375	3	10.7	37	2	S29829	protamine Z3 - sma
376	3	10.7	37	2	S11202	ribosomal protein
377	3	10.7	37	2	S78391	ribosomal protein
378	3	10.7	37	2	S58585	ribosomal protein
379	3	10.7	37	2	T07519	ribosomal protein
380	3	10.7	37	2	A82003	50S ribosomal prot
381	3	10.7	37	2	AC2330	50S ribosomal prot
382	3	10.7	37	2	I65271	collagen alpha 1(I
383	3	10.7	37	2	I51251	myosin heavy chain
384	3	10.7	37	2	S03674	photosystem I prot
385	3	10.7	37	2	JN0035	early protein gp5
386	3	10.7	37	2	G45187	homeotic protein G
387	3	10.7	37	2	F45186	homeotic protein G
388	3	10.7	37	2	F45187	homeotic protein G
389	3	10.7	37	2	D95008	hypothetical prote
390	3	10.7	37	2	S00684	hypothetical prote
391	3	10.7	37	2	H72308	hypothetical prote
392	3	10.7	37	2	G70223	hypothetical prote
393	3	10.7	37	2	C36727	cytochrome c552 -
394	3	10.7	37	2	B81851	hypothetical prote
395	3	10.7	37	2	H82319	hypothetical prote
396	3	10.7	37	2	B41383	18K histone analog
397	3	10.7	37	2	C59106	hypothetical prote
398	3	10.7	37	2	T48964	hypothetical prote
399	3	10.7	37	2	S14101	apolipophorin III
400	3	10.7	37	2	I50036	MHC class I protei
401	3	10.7	37	2	B48845	sterol regulatory
402	3	10.7	37	2	S03837	hcr protein - wood
403	3	10.7	37	2	E83665	hypothetical prote
404	3	10.7	37	2	E81738	hypothetical prote
405	3	10.7	37	2	G95919	probable transposa
406	3	10.7	37	2	E97596	hypothetical prote
407	3	10.7	37	2	G97564	hypothetical prote
408	3	10.7	38	1	G8BPSV	gene 8 protein - s
409	3	10.7	38	2	A05149	crystallin SIII -
410	3	10.7	38	2	A42974	natriuretic peptid
411	3	10.7	38	2	A60583	glycoprotein hormo
412	3	10.7	38	2	A49165	pituitary adenylat

413	3	10.7	38	2	A61070	pituitary adenylat
414	3	10.7	38	2	A21851	22K factor - human
415	3	10.7	38	2	PL0229	T-cell receptor be
416	3	10.7	38	2	A45875	H-2 class I histoc
417	3	10.7	38	2	PS0115	H-2 class I histoc
418	3	10.7	38	2	PS0114	H-2 class I histoc
419	3	10.7	38	2	PS0116	H-2 class I histoc
420	3	10.7	38	2	I58994	MHC H2-L transmemb
421	3	10.7	38	2	S77481	ribosomal protein
422	3	10.7	38	2	PH1920	annexin-like 40K p
423	3	10.7	38	2	T06938	photosystem II pro
424	3	10.7	38	2	I48924	homeobox protein -
425	3	10.7	38	2	F95019	hypothetical prote
426	3	10.7	38	2	B95062	hypothetical prote
427	3	10.7	38	2	B95069	hypothetical prote
428	3	10.7	38	2	A95139	hypothetical prote
429	3	10.7	38	2	S07972	regulatory protein
430	3	10.7	38	2	A83591	hypothetical prote
431	3	10.7	38	2	E81873	hypothetical prote
432	3	10.7	38	2	D81885	hypothetical prote
433	3	10.7	38	2	G81904	hypothetical prote
434	3	10.7	38	2	C81171	hypothetical prote
435	3	10.7	38	2	E64033	hypothetical prote
436	3	10.7	38	2	T01992	hypothetical prote
437	3	10.7	38	2	B42087	mating factor a2 -
438	3	10.7	38	2	JN0613	defensin 4K - scor
439	3	10.7	38	2	I39328	gene 1F6 protein -
440	3	10.7	38	2	S74088	defensin - Mediter
441	3	10.7	38	2	A83831	hypothetical prote
442	3	10.7	38	2	G82807	hypothetical prote
443	3	10.7	38	2	T08652	hypothetical prote
444	3	10.7	38	2	AB0747	hypothetical prote
445	3	10.7	38	2	AH0774	hypothetical prote
446	3	10.7	38	2	C97551	hypothetical prote
447	3	10.7	39	1	F2NT4	cytochrome b559 co
448	3	10.7	39	1	F2RZ4	cytochrome b559 co
449	3	10.7	39	1	S58567	cytochrome b559 co
450	3	10.7	39	1	F2KT5F	cytochrome b559 co
451	3	10.7	39	1	S03192	cytochrome b559 co
452	3	10.7	39	1	S04063	cytochrome b559 co
453	3	10.7	39	1	S35262	cytochrome b559 co
454	3	10.7	39	1	F2LV4	cytochrome b559 co
455	3	10.7	39	1	S28546	protamine 1 - Japa
456	3	10.7	39	2	T07476	cytochrome b559 co
457	3	10.7	39	2	I55325	aspartate transami
458	3	10.7	39	2	C55995	prostaglandin E2 r
459	3	10.7	39	2	S07458	Ig kappa chain V r
460	3	10.7	39	2	T28154	histone H3 homolog
461	3	10.7	39	2	S68791	ribosomal protein
462	3	10.7	39	2	B61581	secretogranin II -
463	3	10.7	39	2	S77164	ycf32 protein - Sy
464	3	10.7	39	2	I52378	gene HOX B6 protei
465	3	10.7	39	2	A48110	RNA recognition mo
466	3	10.7	39	2	F95042	hypothetical prote
467	3	10.7	39	2	C90523	hypothetical prote
468	3	10.7	39	2	D84279	hypothetical prote
469	3	10.7	39	2	A12629	coat protein II -

470	3	10.7	39	2	S23830	E6-2/E6-3 protein
471	3	10.7	39	2	A70151	hypothetical prote
472	3	10.7	39	2	B70207	hypothetical prote
473	3	10.7	39	2	F70207	hypothetical prote
474	3	10.7	39	2	C70210	hypothetical prote
475	3	10.7	39	2	D70239	hypothetical prote
476	3	10.7	39	2	G64522	hypothetical prote
477	3	10.7	39	2	B64559	hypothetical prote
478	3	10.7	39	2	B81912	hypothetical prote
479	3	10.7	39	2	B81954	very hypothetical
480	3	10.7	39	2	B82452	hypothetical prote
481	3	10.7	39	2	A43591	43K outer membrane
482	3	10.7	39	2	S13496	promoter A1 hypoth
483	3	10.7	39	2	T09472	hypothetical prote
484	3	10.7	39	2	S34264	hypothetical prote
485	3	10.7	39	2	S48644	oxidase - Malayan
486	3	10.7	39	2	I56173	EBV/C3d receptor -
487	3	10.7	39	2	S69268	arginine-rich prot
488	3	10.7	39	2	D40984	finger protein zfa
489	3	10.7	39	2	B40984	finger protein zfe
490	3	10.7	39	2	T03344	gene e23 protein -
491	3	10.7	39	2	D83721	hypothetical prote
492	3	10.7	39	2	H83902	hypothetical prote
493	3	10.7	39	2	E81540	hypothetical prote
494	3	10.7	39	2	F82767	hypothetical prote
495	3	10.7	39	2	G82718	hypothetical prote
496	3	10.7	39	2	B85990	hypothetical prote
497	3	10.7	39	2	D85739	hypothetical prote
498	3	10.7	39	2	F64843	hypothetical prote
499	3	10.7	39	2	AE3109	hypothetical prote
500	3	10.7	39	2	AG0838	hypothetical prote
501	3	10.7	39	2	AB2552	hypothetical prote
502	3	10.7	40	1	S14717	protamine 2 - Japa
503	3	10.7	40	2	E22565	R-phycoerythrin be
504	3	10.7	40	2	B27398	allophycocyanin al
505	3	10.7	40	2	A61147	manganese peroxida
506	3	10.7	40	2	S00264	creatine kinase (E
507	3	10.7	40	2	B36048	DNA ligase (ATP) (
508	3	10.7	40	2	S61539	ribosomal protein
509	3	10.7	40	2	S23286	light-harvesting p
510	3	10.7	40	2	T06840	photosystem I chai
511	3	10.7	40	2	S17921	photosystem I prot
512	3	10.7	40	2	S08656	protein VI - human
513	3	10.7	40	2	AH1862	CAB/ELIP/HLIP-rela
514	3	10.7	40	2	B72090	chltr t2 protein -
515	3	10.7	40	2	D86532	CHLTR T2 protein [
516	3	10.7	40	2	H95063	hypothetical prote
517	3	10.7	40	2	A87642	hypothetical prote
518	3	10.7	40	2	E87333	hypothetical prote
519	3	10.7	40	2	F87419	hypothetical prote
520	3	10.7	40	2	B72309	methyl-accepting c
521	3	10.7	40	2	A36953	hypothetical prote
522	3	10.7	40	2	D70237	hypothetical prote
523	3	10.7	40	2	D70240	hypothetical prote
524	3	10.7	40	2	A64530	hypothetical prote
525	3	10.7	40	2	D81036	hypothetical prote
526	3	10.7	40	2	H82330	hypothetical prote

527	3	10.7	40	2	E82183	hypothetical prote
528	3	10.7	40	2	A82382	hypothetical prote
529	3	10.7	40	2	I39944	regulatory extrace
530	3	10.7	40	2	S70088	hypothetical prote
531	3	10.7	40	2	F45095	photosystem I ligh
532	3	10.7	40	2	T07472	hypothetical prote
533	3	10.7	40	2	T07516	hypothetical prote
534	3	10.7	40	2	T07523	hypothetical prote
535	3	10.7	40	2	S53001	mitotic-specific c
536	3	10.7	40	2	PQ0774	early nodulin 10,
537	3	10.7	40	2	T25834	hypothetical prote
538	3	10.7	40	2	JC6536	interferon-gamma p
539	3	10.7	40	2	S71295	deoxyguanosine kin
540	3	10.7	40	2	H81520	hypothetical prote
541	3	10.7	40	2	G81731	hypothetical prote
542	3	10.7	40	2	E81710	hypothetical prote
543	2	7.1	28	1	LFSEW	trp operon leader
544	2	7.1	28	1	LFEBLT	leu operon leader
545	2	7.1	28	1	LFECL	leu operon leader
546	2	7.1	28	2	S71598	cytochrome P450 HP
547	2	7.1	28	2	S04341	cytochrome P450 PB
548	2	7.1	28	2	PX0033	cytochrome P450 te
549	2	7.1	28	2	S47624	D-aspartate oxidas
550	2	7.1	28	2	T14210	NADH2 dehydrogenas
551	2	7.1	28	2	T14213	NADH2 dehydrogenas
552	2	7.1	28	2	T12301	NADH2 dehydrogenas
553	2	7.1	28	2	PC1162	cytochrome-c oxida
554	2	7.1	28	2	S21278	glutathione transf
555	2	7.1	28	2	A34244	hexokinase (EC 2.7
556	2	7.1	28	2	D38578	protein kinase 4 (
557	2	7.1	28	2	B39116	epidermal growth f
558	2	7.1	28	2	A42272	brain-type creatin
559	2	7.1	28	2	I55596	lysosomal acid lip
560	2	7.1	28	2	B35948	phospholipase A2 (
561	2	7.1	28	2	C32416	phospholipase A2 (
562	2	7.1	28	2	C35948	phospholipase A2 (
563	2	7.1	28	2	A38296	sterol esterase (E
564	2	7.1	28	2	A35115	hypothetical prote
565	2	7.1	28	2	A61529	chymotrypsin (EC 3
566	2	7.1	28	2	A60291	24K proteinase (EC
567	2	7.1	28	2	S08186	proteasome beta ch
568	2	7.1	28	2	S55729	orotidine-5'-monop
569	2	7.1	28	2	I40034	trpE protein - Bac
570	2	7.1	28	2	A32643	deoxyribodipyrimid
571	2	7.1	28	2	S77854	glutamate-tRNA lig
572	2	7.1	28	2	JX0059	serine proteinase
573	2	7.1	28	2	S07156	trypsin inhibitor
574	2	7.1	28	2	B45041	trypsin inhibitor
575	2	7.1	28	2	T47196	RAS protein [impor
576	2	7.1	28	2	A61322	somatostatin-28 -
577	2	7.1	28	2	B60583	glycoprotein hormo
578	2	7.1	28	2	B60071	vasoactive intesti
579	2	7.1	28	2	A60304	vasoactive intesti
580	2	7.1	28	2	A38232	vasoactive intesti
581	2	7.1	28	2	A60303	vasoactive intesti
582	2	7.1	28	2	JT0412	bombyxin-IV chain
583	2	7.1	28	2	A56366	intestinal trefoil

584	2	7.1	28	2	C44180	alpha-neurotoxin-l
585	2	7.1	28	2	I32529	Ig lambda chain V
586	2	7.1	28	2	PC1001	Ig light chain V r
587	2	7.1	28	2	B47719	T-cell receptor al
588	2	7.1	28	2	D47719	T-cell receptor al
589	2	7.1	28	2	S58389	T-cell receptor be
590	2	7.1	28	2	PH0250	T-cell receptor Vb
591	2	7.1	28	2	PH0247	T-cell receptor Vb
592	2	7.1	28	2	A49829	T-cell receptor va
593	2	7.1	28	2	D49829	T-cell receptor va
594	2	7.1	28	2	PH1908	T-cell receptor al
595	2	7.1	28	2	PH0231	T-cell receptor Vb
596	2	7.1	28	2	G47719	house-dust-mite-re
597	2	7.1	28	2	E49533	T-cell receptor be
598	2	7.1	28	2	S11618	ribosomal protein
599	2	7.1	28	2	S51060	ribosomal protein
600	2	7.1	28	2	S51067	ribosomal protein
601	2	7.1	28	2	S72460	ribosomal protein
602	2	7.1	28	2	S10052	ribosomal protein
603	2	7.1	28	2	S55442	beta A2 crystallin
604	2	7.1	28	2	A45626	beta 2-tubulin - n
605	2	7.1	28	2	A23691	apolipoprotein C-I
606	2	7.1	28	2	I48349	fibronectin - mous
607	2	7.1	28	2	I52394	fibronectin, splic
608	2	7.1	28	2	A61233	retinol-binding pr
609	2	7.1	28	2	I45911	dnaK-type molecula
610	2	7.1	28	2	PQ0263	dnaK-type molecula
611	2	7.1	28	2	A60359	pollen allergen DG
612	2	7.1	28	2	A60752	outer membrane pro
613	2	7.1	28	2	PQ0691	photosystem I 5.6K
614	2	7.1	28	2	G32351	34K class B flagel
615	2	7.1	28	2	S47614	zinc finger protei
616	2	7.1	28	2	S49924	stp protein (Baker
617	2	7.1	28	2	A48855	calcium channel al
618	2	7.1	28	2	B39227	calcium channel pr
619	2	7.1	28	2	F54346	pyruvate synthase
620	2	7.1	28	2	A36153	major allergen Ole
621	2	7.1	28	2	B54127	dolichyl-diphospho
622	2	7.1	28	2	S56746	alpha-synuclein, N
623	2	7.1	28	2	PC4429	peroxisome prolife
624	2	7.1	28	2	PC4430	peroxisome prolife
625	2	7.1	28	2	S29135	aminopyrine N-deme
626	2	7.1	28	2	S29136	aminopyrine N-deme
627	2	7.1	28	2	PN0625	homeobox JRX prote
628	2	7.1	28	2	JU0297	fruR-shl operon le
629	2	7.1	28	2	G90638	leu operon leader
630	2	7.1	28	2	C90639	fruR leader peptid
631	2	7.1	28	2	B47310	MHVS28AA - murine
632	2	7.1	28	2	E64656	hypothetical prote
633	2	7.1	28	2	B64669	hypothetical prote
634	2	7.1	28	2	S15235	hypothetical prote
635	2	7.1	28	2	S29285	arylalkyl acylamid
636	2	7.1	28	2	PX0069	D-phenylserine deh
637	2	7.1	28	2	C56262	uvrB 3'-region hyp
638	2	7.1	28	2	E81239	hypothetical prote
639	2	7.1	28	2	I60364	phosphorybosylpyro
640	2	7.1	28	2	S70894	hypothetical prote

641	2	7.1	28	2	B39191	hypothetical prote
642	2	7.1	28	2	T17391	hypothetical prote
643	2	7.1	28	2	S22469	hypothetical prote
644	2	7.1	28	2	A56499	brevicin-27 - Lact
645	2	7.1	28	2	S63502	95K protein - Euba
646	2	7.1	28	2	A41476	probable antigen 1
647	2	7.1	28	2	S16228	aryl acylamidase -
648	2	7.1	28	2	T37143	hypothetical prote
649	2	7.1	28	2	PS0106	2-phosphinomethylm
650	2	7.1	28	2	T06925	hypothetical prote
651	2	7.1	28	2	T09594	gene LFY protein -
652	2	7.1	28	2	C60683	malate dehydrogena
653	2	7.1	28	2	S38524	rRNA N-glycosidase
654	2	7.1	28	2	S21742	3-oxoacyl-[acyl-ca
655	2	7.1	28	2	T06340	ribosomal protein
656	2	7.1	28	2	PH0220	peroxidase (EC 1.1
657	2	7.1	28	2	S46250	fatty-acid-binding
658	2	7.1	28	2	S64701	hypothetical prote
659	2	7.1	28	2	T38041	similarity to yeas
660	2	7.1	28	2	A60698	trichocyst protein
661	2	7.1	28	2	A27261	proteinase inhibit
662	2	7.1	28	2	A61417	bdellin B-3 - medi
663	2	7.1	28	2	S06668	toxin-like protein
664	2	7.1	28	2	C34923	omega-agatoxin IIA
665	2	7.1	28	2	JW0019	mast cell degranul
666	2	7.1	28	2	A61273	interleukin-1 - st
667	2	7.1	28	2	S26254	rel protein - chic
668	2	7.1	28	2	PC2162	angiotensin II rec
669	2	7.1	28	2	S54338	cytochrome P450 CY
670	2	7.1	28	2	I52627	erythrocyte chemok
671	2	7.1	28	2	PH1335	Ig heavy chain DJ
672	2	7.1	28	2	S37683	protein IEF SSP 91
673	2	7.1	28	2	S37686	protein IEF SSP 92
674	2	7.1	28	2	PH1911	T-cell receptor al
675	2	7.1	28	2	I39288	ZF3 domain - human
676	2	7.1	28	2	PL0005	pepsin A (EC 3.4.2
677	2	7.1	28	2	A60692	proline-rich prote
678	2	7.1	28	2	PC2239	heat shock protein
679	2	7.1	28	2	PT0366	T-cell receptor be
680	2	7.1	28	2	I58115	cystic fibrosis tr
681	2	7.1	28	2	A46690	sialic acid-specif
682	2	7.1	28	2	B83797	hypothetical prote
683	2	7.1	28	2	C83797	hypothetical prote
684	2	7.1	28	2	C85490	fruR leader peptid
685	2	7.1	28	2	C97078	hypothetical prote
686	2	7.1	28	2	F97000	hypothetical prote
687	2	7.1	28	2	G85489	leu operon leader
688	2	7.1	28	2	H85908	hypothetical prote
689	2	7.1	28	2	AB1093	hypothetical prote
690	2	7.1	28	2	T06490	probable ribulose-
691	2	7.1	28	2	S73563	H+-transporting tw
692	2	7.1	28	2	AG0516	leu operon leader
693	2	7.1	28	4	I68614	frame shifted FMR1
694	2	7.1	29	1	TIPU	trypsin inhibitor
695	2	7.1	29	1	TIPU3	trypsin inhibitor
696	2	7.1	29	1	GCCB	glucagon - Chinch
697	2	7.1	29	1	GCOPV	glucagon - North A

698	2	7.1	29	1	GCDK	glucagon - duck
699	2	7.1	29	1	A61583	glucagon - ostrich
700	2	7.1	29	1	GCFLE	glucagon - Europea
701	2	7.1	29	1	GCDF	glucagon - smaller
702	2	7.1	29	1	GCEN	glucagon - elephan
703	2	7.1	29	1	GCTTS	glucagon - slider
704	2	7.1	29	1	Q1BP57	gene 1.5 protein -
705	2	7.1	29	2	A60558	cytochrome P450 HL
706	2	7.1	29	2	T12262	NADH2 dehydrogenas
707	2	7.1	29	2	T12250	NADH2 dehydrogenas
708	2	7.1	29	2	T12242	NADH2 dehydrogenas
709	2	7.1	29	2	T12246	NADH2 dehydrogenas
710	2	7.1	29	2	T17079	NADH2 dehydrogenas
711	2	7.1	29	2	T17076	NADH2 dehydrogenas
712	2	7.1	29	2	A48427	flavohemoglobin hm
713	2	7.1	29	2	A54234	cytochrome-c oxida
714	2	7.1	29	2	PC2364	protoporphyrinogen
715	2	7.1	29	2	S08201	peroxidase (EC 1.1
716	2	7.1	29	2	A26208	acetyl-CoA C-acety
717	2	7.1	29	2	C44775	fibroblast growth
718	2	7.1	29	2	A22018	phosphotransferase
719	2	7.1	29	2	S28174	heat-shock protein
720	2	7.1	29	2	A32414	bothrolysin (EC 3.
721	2	7.1	29	2	S17432	H+-transporting tw
722	2	7.1	29	2	S02578	H+-transporting tw
723	2	7.1	29	2	JU0211	squash-type trypsi
724	2	7.1	29	2	T03653	phospholipid trans
725	2	7.1	29	2	C24536	alpha-amylase/tryp
726	2	7.1	29	2	C25310	alpha-amylase/tryp
727	2	7.1	29	2	D55998	brevinin-2Ed - edi
728	2	7.1	29	2	D53578	brevinin-2Ee - edi
729	2	7.1	29	2	A91740	glucagon - turkey
730	2	7.1	29	2	A91741	glucagon - rabbit
731	2	7.1	29	2	A91742	glucagon - Arabian
732	2	7.1	29	2	S07211	glucagon - marbled
733	2	7.1	29	2	A61135	glucagon - bigeye
734	2	7.1	29	2	C39258	glucagon - common
735	2	7.1	29	2	C60840	glucagon I - Europ
736	2	7.1	29	2	S39018	glucagon - bowfin
737	2	7.1	29	2	A39462	cholestinin - do
738	2	7.1	29	2	S17147	galanin - chicken
739	2	7.1	29	2	A60791	toxin II.9 - scorp
740	2	7.1	29	2	A43620	omega-conotoxin GV
741	2	7.1	29	2	B43620	omega-conotoxin GV
742	2	7.1	29	2	JH0699	omega-conotoxin MV
743	2	7.1	29	2	I52628	low affinity nerve
744	2	7.1	29	2	S10061	Ig heavy chain (cl
745	2	7.1	29	2	PH0259	T-cell receptor Vb
746	2	7.1	29	2	PH0239	T-cell receptor Vb
747	2	7.1	29	2	PH0251	T-cell receptor Vb
748	2	7.1	29	2	PH0254	T-cell receptor Vb
749	2	7.1	29	2	PH0233	T-cell receptor Vb
750	2	7.1	29	2	E31485	Ig heavy chain V r
751	2	7.1	29	2	H31485	Ig kappa chain V r
752	2	7.1	29	2	S58388	T-cell receptor be
753	2	7.1	29	2	G31461	T-cell receptor de
754	2	7.1	29	2	C47719	T-cell receptor al

755	2	7.1	29	2	E47719	house-dust-mite-re
756	2	7.1	29	2	H47719	house-dust-mite-re
757	2	7.1	29	2	S58390	T-cell receptor be
758	2	7.1	29	2	PS0134	H-2 class I histoc
759	2	7.1	29	2	PS0132	H-2 class I histoc
760	2	7.1	29	2	I50214	protein-tyrosine-p
761	2	7.1	29	2	S07771	histone H2B.2, spe
762	2	7.1	29	2	T04412	histone H3 - barle
763	2	7.1	29	2	T44245	ribosomal protein
764	2	7.1	29	2	S51070	ribosomal protein
765	2	7.1	29	2	S08555	ribosomal protein
766	2	7.1	29	2	PC4231	ribosomal protein
767	2	7.1	29	2	S10050	ribosomal protein
768	2	7.1	29	2	S10049	ribosomal protein
769	2	7.1	29	2	S26229	ribosomal protein
770	2	7.1	29	2	A27561	Meth A tumor-speci
771	2	7.1	29	2	S01614	dystrophin - rat (
772	2	7.1	29	2	A05272	gelsolin, cytosoli
773	2	7.1	29	2	B44101	calmodulin, vasoac
774	2	7.1	29	2	E33208	calreticulin, uter
775	2	7.1	29	2	C33208	calreticulin, slow
776	2	7.1	29	2	D33208	calreticulin, brai
777	2	7.1	29	2	A45474	thrombospondin 2 -
778	2	7.1	29	2	I52402	alpha-fetoprotein
779	2	7.1	29	2	S00564	enamel protein - r
780	2	7.1	29	2	S06854	chorion class B pr
781	2	7.1	29	2	T12082	proline-rich prote
782	2	7.1	29	2	S05218	photosystem I 18K
783	2	7.1	29	2	S07055	photosystem I prot
784	2	7.1	29	2	S05032	photosystem II pro
785	2	7.1	29	2	S08088	gene VII protein -
786	2	7.1	29	2	T51116	probable precorrin
787	2	7.1	29	2	B34490	lens fiber cell me
788	2	7.1	29	2	A53145	high conductance c
789	2	7.1	29	2	S63509	glycine reductase
790	2	7.1	29	2	S57225	labial protein (cl
791	2	7.1	29	2	S32732	homeotic protein -
792	2	7.1	29	2	G90719	hypothetical prote
793	2	7.1	29	2	S07513	gene 5.1 protein -
794	2	7.1	29	2	S14040	hypothetical prote
795	2	7.1	29	2	B64607	hypothetical prote
796	2	7.1	29	2	G64674	hypothetical prote
797	2	7.1	29	2	G83440	KdpF protein PA163
798	2	7.1	29	2	A49288	alcohol dehydrogen
799	2	7.1	29	2	A00774	3-oxoadipate enol-
800	2	7.1	29	2	H81941	hypothetical prote
801	2	7.1	29	2	A81078	hypothetical prote
802	2	7.1	29	2	B81006	hypothetical prote
803	2	7.1	29	2	I84189	cyclic AMP recepto
804	2	7.1	29	2	T48910	KdpF protein [vali
805	2	7.1	29	2	A35445	repY protein - Esc
806	2	7.1	29	2	S19943	aadB protein - Kle
807	2	7.1	29	2	S65747	CDP-paratose synth
808	2	7.1	29	2	S65748	CDP-paratose synth
809	2	7.1	29	2	A49914	S-layer protein va
810	2	7.1	29	2	E64036	hypothetical prote
811	2	7.1	29	2	C40638	orf 3' of cycI - R

812	2	7.1	29	2	S05224	photosystem I 4.8K
813	2	7.1	29	2	B56817	photosystem I chai
814	2	7.1	29	2	S74572	hypothetical prote
815	2	7.1	29	2	C60743	putrescine carbamo
816	2	7.1	29	2	S67989	HA-19/HA-52 protei
817	2	7.1	29	2	S77569	plantaricin SA6 -
818	2	7.1	29	2	S21222	48K protein - Euba
819	2	7.1	29	2	B41476	probable antigen 2
820	2	7.1	29	2	S03947	hydrogen dehydroge
821	2	7.1	29	2	T37120	hypothetical prote
822	2	7.1	29	2	T36654	probable small mem
823	2	7.1	29	2	B43937	endo-1,4-beta-xyla
824	2	7.1	29	2	S09556	hypothetical prote
825	2	7.1	29	2	T06904	hypothetical prote
826	2	7.1	29	2	S73197	hypothetical prote
827	2	7.1	29	2	S78326	conserved hypothet
828	2	7.1	29	2	S78310	hypothetical prote
829	2	7.1	29	2	S78360	hypothetical prote
830	2	7.1	29	2	S01572	hypothetical prote
831	2	7.1	29	2	S01448	hypothetical prote
832	2	7.1	29	2	S38525	rRNA N-glycosidase
833	2	7.1	29	2	S16323	hypothetical prote
834	2	7.1	29	2	T52557	translation elonga
835	2	7.1	29	2	PQ0862	allantoinase (EC 3
836	2	7.1	29	2	S43992	peroxidase (EC 1.1
837	2	7.1	29	2	PQ0486	globulin 2a - taro
838	2	7.1	29	2	PC2035	alanine transamina
839	2	7.1	29	2	S78714	protein YDR524w-a
840	2	7.1	29	2	B21112	variant surface gl
841	2	7.1	29	2	C60110	repetitive protein
842	2	7.1	29	2	B60698	trichocyst protein
843	2	7.1	29	2	D24802	cuticle protein 36
844	2	7.1	29	2	A61613	ceratotoxin A - Me
845	2	7.1	29	2	B61613	ceratotoxin B - Me
846	2	7.1	29	2	PH1230	lectin - namazu (f
847	2	7.1	29	2	A32860	biotin-binding pro
848	2	7.1	29	2	I50695	non-collagenous al
849	2	7.1	29	2	A35891	carcinoembryonic a
850	2	7.1	29	2	I77372	CD44SP - human
851	2	7.1	29	2	I78537	copper transportin
852	2	7.1	29	2	S54340	diazepam binding i
853	2	7.1	29	2	A41683	hyaluronate recept
854	2	7.1	29	2	S35924	T-cell receptor ga
855	2	7.1	29	2	C61384	trachael mucin gly
856	2	7.1	29	2	A60604	glutathione peroxi
857	2	7.1	29	2	S57204	oviduct-specific s
858	2	7.1	29	2	I47025	antigen WC1 [impor
859	2	7.1	29	2	A49410	t-complex polypept
860	2	7.1	29	2	PS0125	H-2 class I histoc
861	2	7.1	29	2	S46929	tegl69 protein - m
862	2	7.1	29	2	S38749	vimentin homolog -
863	2	7.1	29	2	S42764	Ca2+/calmodulin-de
864	2	7.1	29	2	S78412	ribosomal protein
865	2	7.1	29	2	A49708	synaptosomal-assoc
866	2	7.1	29	2	T31443	cytochrome bc chai
867	2	7.1	29	2	H83777	hypothetical prote
868	2	7.1	29	2	C83833	hypothetical prote

869	2	7.1	29	2	F83870	hypothetical prote
870	2	7.1	29	2	A83923	hypothetical prote
871	2	7.1	29	2	B84144	hypothetical prote
872	2	7.1	29	2	PC4421	multactivase (EC 3
873	2	7.1	29	2	F85570	hypothetical prote
874	2	7.1	29	2	G86058	hypothetical prote
875	2	7.1	29	2	H89949	hypothetical prote
876	2	7.1	29	2	A59278	neurotoxin BmK A3-
877	2	7.1	29	2	S17496	inorganic diphosph
878	2	7.1	29	2	I49732	NADH2 dehydrogenas
879	2	7.1	29	2	S34762	L-serine ammonia-1
880	2	7.1	29	2	AB0717	hypothetical prote
881	2	7.1	29	2	AC0717	hypothetical prote
882	2	7.1	29	2	AH2338	PetN protein [impo
883	2	7.1	29	4	I58970	hypothetical prote
884	2	7.1	30	1	TIPU1W	trypsin inhibitor
885	2	7.1	30	1	OEON2K	beta-endorphin II
886	2	7.1	30	2	I57689	ubiquinol-cytochro
887	2	7.1	30	2	I52254	gene CYP11B2 prote
888	2	7.1	30	2	B56859	fatty acid omega-h
889	2	7.1	30	2	F60691	phycobilisome beta
890	2	7.1	30	2	S14214	NADH2 dehydrogenas
891	2	7.1	30	2	PQ0723	parvalbumin [impor
892	2	7.1	30	2	S08202	peroxidase (EC 1.1
893	2	7.1	30	2	S08204	peroxidase (EC 1.1
894	2	7.1	30	2	S08203	peroxidase (EC 1.1
895	2	7.1	30	2	I38066	nitric-oxide synth
896	2	7.1	30	2	S40309	tyrosine 3-monooxy
897	2	7.1	30	2	C21897	ornithine carbamoy
898	2	7.1	30	2	I39799	CAT-66 - Bacillus
899	2	7.1	30	2	A18780	dimethylallyltrans
900	2	7.1	30	2	S03283	methionine adenosy
901	2	7.1	30	2	S71865	glutathione transf
902	2	7.1	30	2	B27103	aspartate transami
903	2	7.1	30	2	A27103	aspartate transami
904	2	7.1	30	2	S68639	nigroxin A - black
905	2	7.1	30	2	S68640	nigroxin B - black
906	2	7.1	30	2	S15678	acetylcholinestera
907	2	7.1	30	2	A05315	pancreatic ribonuc
908	2	7.1	30	2	A05004	pancreatic ribonuc
909	2	7.1	30	2	D57001	endo-1,4-beta-xyla
910	2	7.1	30	2	A43937	endo-1,4-beta-xyla
911	2	7.1	30	2	PC2361	alpha-glucosidase
912	2	7.1	30	2	PX0073	epoxide hydrolase
913	2	7.1	30	2	PC2328	proteasome endopep
914	2	7.1	30	2	A34486	inorganic diphosph
915	2	7.1	30	2	S21816	H+-exporting ATPas
916	2	7.1	30	2	S21814	H+-exporting ATPas
917	2	7.1	30	2	S21815	H+-exporting ATPas
918	2	7.1	30	2	S74121	fructose-bisphosph
919	2	7.1	30	2	S25666	phosphopyruvate hy
920	2	7.1	30	2	S69600	peptidylprolyl iso
921	2	7.1	30	2	A60517	alpha-1-antitrypsi
922	2	7.1	30	2	A44912	cysteine proteinas
923	2	7.1	30	2	JX0057	trypsin inhibitor
924	2	7.1	30	2	JS0579	squash-type trypsi
925	2	7.1	30	2	JQ1958	trypsin inhibitor

926	2	7.1	30	2	PC1113	proteinase inhibit
927	2	7.1	30	2	C42842	antifungal 2S stor
928	2	7.1	30	2	S70341	napin large chain
929	2	7.1	30	2	A33308	thrombomodulin - r
930	2	7.1	30	2	S01657	atrial natriuretic
931	2	7.1	30	2	A61130	somatotropin - Ame
932	2	7.1	30	2	S44473	glucagon-like pept
933	2	7.1	30	2	B61125	glucagon-like pept
934	2	7.1	30	2	C61125	glucagon-like pept
935	2	7.1	30	2	A59076	defensin alpha-1 -
936	2	7.1	30	2	B59076	defensin alpha-2 -
937	2	7.1	30	2	B60791	toxin II.6 - scorp
938	2	7.1	30	2	A31187	neurotoxin II.22.5
939	2	7.1	30	2	C49533	T-cell receptor al
940	2	7.1	30	2	S20778	Ig heavy chain V r
941	2	7.1	30	2	PL0092	Ig heavy chain V r
942	2	7.1	30	2	PH0249	T-cell receptor Vb
943	2	7.1	30	2	PH0256	T-cell receptor Vb
944	2	7.1	30	2	PH0243	T-cell receptor Vb
945	2	7.1	30	2	PH0237	T-cell receptor Vb
946	2	7.1	30	2	PH0245	T-cell receptor Vb
947	2	7.1	30	2	PH0228	T-cell receptor Vb
948	2	7.1	30	2	PH0252	T-cell receptor Vb
949	2	7.1	30	2	PH0882	Ig kappa chain V r
950	2	7.1	30	2	E31461	T-cell receptor de
951	2	7.1	30	2	PH0235	T-cell receptor Vb
952	2	7.1	30	2	A49533	T-cell receptor al
953	2	7.1	30	2	I37626	Fc gamma (IgG) rec
954	2	7.1	30	2	PS0121	H-2 class I histoc
955	2	7.1	30	2	S74192	crotoxin inhibitor
956	2	7.1	30	2	A05253	hemoglobin epsilon
957	2	7.1	30	2	PD0014	cAMP response elem
958	2	7.1	30	2	PN0651	restriction endonu
959	2	7.1	30	2	A60511	gamma-crystallin -
960	2	7.1	30	2	I49412	gamma-crystallin-3
961	2	7.1	30	2	S12965	gamma-crystallin -
962	2	7.1	30	2	S02571	neurofilament trip
963	2	7.1	30	2	S69269	ezrin homolog - bo
964	2	7.1	30	2	A61189	tubulin beta chain
965	2	7.1	30	2	I52806	Duchenne muscular
966	2	7.1	30	2	S21195	spectrin beta chai
967	2	7.1	30	2	A56790	annexin, isoform P
968	2	7.1	30	2	A34622	fibrinogen beta ch
969	2	7.1	30	2	A03148	retinol-binding pr
970	2	7.1	30	2	B61511	serum albumin, mil
971	2	7.1	30	2	B39819	neutrophil chemota
972	2	7.1	30	2	S57234	fushi tarazu segme
973	2	7.1	30	2	S52126	gamma3-gliadin P25
974	2	7.1	30	2	S38527	rRNA N-glycosidase
975	2	7.1	30	2	S69124	rRNA N-glycosidase
976	2	7.1	30	2	S69125	rRNA N-glycosidase
977	2	7.1	30	2	S07065	rRNA N-glycosidase
978	2	7.1	30	2	A31836	17K antigen - Rick
979	2	7.1	30	2	S14062	hypothetical prote
980	2	7.1	30	2	PQ0669	photosystem I 17.5
981	2	7.1	30	2	PQ0672	photosystem I 14.4
982	2	7.1	30	2	E45095	photosystem I ligh